The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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40 Choutales, 7s.	20 Leadhills, £5.	15 Roman Grav., £7 17 6
20 Combmartin, 4s.	25 Llanrwst, £2 16s.	25 St. Harmon, £22½.
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25 Frontino, £3 1s. 3d.	20 Marke Valley, 14s. 6d.	25 Van Consols, 10s.
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20 Grogwinion, £3¾.	50 North Laxey, 11s. 3d.	100 W. Combmartin, 7s 6d
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TIN SHARES, AND THE RISE IN TIN.—SPECIAL BUSINESS at close prices in Carn Brea, Cook's Kitchen, Dolcoath, East Lovell, South Condurrow, Tincroft, Wheal Agar, Peevor, Grenville, Uny, and others. JAMES H. CROFTS, 1, FINCH LANE, LONDON.

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15 Blue Tent, £2¾.	40 Glenroy, 18s. 6d.	15 Richmond, £9½.
40 Cedar Creek, 9s.	50 Hultafall.	25 Rookhope, 22s. 9d.
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20 Colorado Terrible.	50 Javali, 7s. 3d.	15 South Frances.
40 Chontales, 8s. 6d.	20 Kapanga, 28s. 6d.	20 South Aurora, 6s. 6d.
20 Derwent.	30 Last Chance, 16s. 6d.	10 Tankerville, £4 18s 9d
30 Don Pedro, 9s. 6d.	20 Leadhills, £5½.	5 Van, £32¼.
15 Devon Consols, £3 8 9	50 Marke Valley, 14s.	30 West Tankerville, 17s.
30 East Van, £3 13s. 9d.	25 New Quebrada, 41s.	20 Wheal Grenville.
10 Eberhardt, £7½.	60 North Laxey, 11s. 3d.	3 West Chiverton.
40 Exchequer, 6s. 9d.	70 Pestarena, 6s.	50 West Assheton, 14s.
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BRITISH and FOREIGN MINES:—

Alltami Colliery, £4.	North Treskerby, 11s 3d	Chontales, 7s.
Derwent.	Pandora, 15s.	Exchequer, 6s. 6d.
East Caradon.	Parys Mountain, 11s.	Eberhardt, £7 1s.
East Chiverton.	Penstruthal, 6s. 3d.	Flagstaff, £2 3s. 9d.
East Van, £3 16s. 3d.	Roman Grav., £7⅞.	Frontino, £2 18s. 9d.
Grogwinion, £3¾.	Rookhope, 22s. 6d.	Hultafall, £5.
Gorsedd and Merll.	South Frances, £3½.	Last Chance, 15s.
Holmbush. 3os.	Tankerville, £5½.	New Quebrada, 40s.
Leadhills, £4 18s. 9d.	Van Consols, 10s.	N. Zealand Kap., 27s 6d
Ladywell, 21s. 3d.	W. Tankerville, 16s. 6d.	Port Phillip, 11s.
Llanrwst, £2½.	Wheal Peevor, £6½.	Richmond, £8¾.
North Laxey, 11s.	West Wye Valley, £3¼.	Tecoma, 6s. 6d.

Aberdaunant, Cambrian, Carn Brea, Chapel House Colliery, Devon Consols, Dolcoath, Glenroy, Glyn, Minera, Pateley Bridge, Plynlimmon, Prince of Wales, Van, Wheal Newton. —— Argentine, Almada, Chicago, Colorado, Don Pedro, Javali, Malabar, I.X.L., South Aurora, Yorke Peninsula.
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	Buyers.	Sellers.		Buyers.	Sellers.
Argentine	£ 2½	£ 2¾	Minera	£17	£19
Cambrian	2	2¼	North Laxey	10s.	12s.
Chicago	2¼	2½	New Quebrada	1¼	2¼
Chontales	¼	⅜	New Zealand Kapanga	1½	1⅝
Derwent	1⅜	2	Parys Mountain	10s.	11s.
Devon Great Consols	2½	2¾	Pateley Bridge	1¾	2¼
Dolcoath	37	39	Penhalls	17s.6d.	22s6d.
Don Pedro	7s.	9s.	Richmond	8¾	9
Eberhardt	7	7½	Roman Gravels	7¾	8
East Caradon	1	1¼	Rookhope	21s.	23s.
East Lovell	17s. 6d.	20s.	San Pedro	¼	½
East Van	3	3¼	South Condurrow	9⅛	9¾
Exchequer Gold	6s.	8s.	Tankerville	5	5¼
Flagstaff	2½	2¾	Tincroft	17	18
Frontino	2¾	3	Van	32	33
Glenroy	14s. 6d.	16s. 6d.	Van Consols	5s.	10s.
Glyn	5s.	10s.	West Chiverton	13	15
Gorsedd and Merllyn	5	6	West Pateley Bridge	1	1½
Great Laxey	21½	2¾	West Godolphin	1½	2
Hingston	7s. 6d.	10s.	West Tankerville	15s.	17s.
Hultafall	5	5¼	West Wye Valley	2¾	3¼
Last Chance	14s.	16s.	W. Grenville	3	3½
Ladywell	17s. 6d.	20s.	Wheal Kitty	2	2½
Llanrwst	2¾	2¾	Wheal Peevor	6	6½
Leadhills	4¾	5	Wye Valley	2	2¼
Marke Valley	12s.6d.	15s.			

N.B.—There are a few mines now on the market which are certain to have a substantial rise almost immediately. On the other hand, there are several mines selling at prices far beyond their value, and likely to greatly recede before the end of the year.
My clients holding any shares named in the above List will receive, for their guidance, the best information I can possibly obtain for them upon application as above.

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East Van.	North Laxey.	West Craven Moor.
Glenroy	Roman Gravels.	West Tankerville.
Great Laxey.	Rookhope.	West Wye Valley.
Grogwinion.	St. Harmon.	Wye Valley.
Hultafall.	Tankerville.	

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200	BODIDRIS	do	100	PANDORA	do
50	EAST CRAVEN MOOR	do	25	PENNANT	do
20	EAST VAN	do	100	PENNERLEY	do
200	GLENROY	do	70	ROOKHOPE	do
6	GREAT LAXEY	do	25	ROMAN GRAVELS	do
100	GREAT WEST VAN	do	50	RED ROCK	do
50	GREAT HOLWAY	do	15	ST. HARMON	do
40	HULTAFALL	do	50	SOUTH CONDURROW	TIN.
10	LEADHILLS	do	25	TANKERVILLE	LEAD.
50	LOVELL	do	5	VAN	do
30	LLANRWST	do	60	VAN CONSOLS	do
50	MONYDD GORDDU	do	10	WEST WYE VALLEY	do
100	MEDLYN MOOR	TIN.	20	WHEAL GRENVILLE	do
200	NORTH LAXEY	LEAD.	20	WEST CRAVEN MOOR	do
50	PARYS MOUNTAIN	COPPER.	25	WEST CHIVERTON	do
200	PENSTRUTHAL	TIN.	25	WHEAL JANE	TIN.

N.B.—Some of the above will be sold on specially favourable terms to cash purchasers.

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CLAUSTHAL MINING SCHOOL NOTES—No. I.*

BY J. CLARK JEFFERSON, A.R.S.M., WH. SC.,
Certificated Mining Engineer.
(Formerly Student at the Royal Bergakademie, Clausthal).
[The Author reserves the right of reproduction.]

SECTION III.

The application of water under the third head finds extensive use in the gold stream works of California and some other parts of the world. The water is led to the place where it is to be used in conduits, and from the reservoirs, where it is taken off in iron pipes. Formerly ordinary leather and hose pipes were used, but these were found too weak to withstand the enormous pressure of water, sometimes due to a head of from 100 ft. to 150 ft. The head of the iron pipes to which the nozzle is attached are fixed to the mains with universal joints, so as to allow of the stream of water being readily led in any desired direction. The nozzle is usually 1½ in. diameter. The stream of water is directed to the rock, which it washes out and undermines, and after some time the whole of the mass thus undermined falls of itself. The material which is washed out, and the rock itself after it has fallen, is thus washed away; the streams carrying the rock, &c., are led through specially prepared channels, or wooden conduits, where the heavy gold settles down to the bottom, and is afterwards picked out. The effect of one man is said to be increased from 10 to 20 times that in the ordinary method of stream working.

MACHINE WORKING.—In consequence of the increased cost of human labour during the last 20 to 25 years attempts have been made to follow the example set in other branches of industry, and to replace the most exhaustive and expensive labour in mines by machines. The operations in mining are, however, subject to so many varying conditions, which in the same place may vary much in a short time, and that the regularity and continuance in the nature of the work to be performed, which in many branches of industry are essential to the economical application of machinery, cannot be looked for to any very great extent in mining, if we except, perhaps, that of coal cutting.

The two departments of labour in coal mines which most naturally present themselves as those which would profit by the introduction of machines are boring and coal cutting. To avoid the danger which always attends the blasting of coal in fiery seams, machines have also been invented to replace to some extent human labour in the breaking down of coal.

The object of the next numbers is to describe the various machines, and their mode of application, which have from time to time been brought forward. The advantages of machine working lie not merely in the lessened amount and cost of labour, but also to a very great extent in the increased rapidity with which the various operations are performed. Indeed, there are many cases in which time is of much more importance than the mere gain arising from a diminished labour cost. When we consider the amount of capital which in many cases must remain unremunerative till the "dead" works are completed in opening out of a new deposit, as the sinking of a shaft or the driving of a main level, or in the pumping expenses, or it may be even the danger of the flooding of the workings until an adit level is completed, we see that if machine labour cannot with advantage be introduced in the ordinary operations of mining, still there are many special cases in which it may most advantageously be used.

The motive power for the machine is almost universally compressed air; sometimes, however, steam or water may be used. The use of the latter will depend on local circumstances. The advantages possessed by compressed air are that the circulation of the ventilating current is assisted, and the working place is kept cooler, while steam possesses the great disadvantage of heating the working places, and requiring a strong ventilating current to carry away the exhaust steam; besides, the latter cannot be carried to such great distances from the generator without great loss of power. The cost in plant by the use of compressed air is greater, owing to the necessity of having an air compressing engine and air receiver. A consideration of the various types of air compressing engines will be best treated of when we come to consider the mechanical means of producing air currents by means of air exhausters, &c., in the section on Ventilation.

MACHINE BORING.—Before describing the machines, however, it may be well to consider what conditions bore machines, or rock drills as they are often termed, should fulfill. A boring machine should be of such dimensions and weight that it can be readily moved from one place to another, that it can be fixed conveniently in any position, and easily manipulated by two or three men; it should, therefore, be of comparitively small dimensions and weight. If a greater number of men are required, instead of a saving in hand labour there will be the same if not additional expense, especially in lodes and in hard compact rock, where the suitable placing of a bore hole is of such importance that it is found more advantageous to fire one hole before drilling the next, so that it may be placed in a better position with respect to the contour of the face; and for this latter reason it is evident that any machine which may become destined to supersede hand labour in the ordinary working of veins must be of such dimensions, weight, and construction that it can be readily and conveniently fixed in any desired position. In other cases this requirement might perhaps be dispensed with, either on account of the advantage of placing a shot in a suitable position being more than counterbalanced by the loss of time occupied in fixing the machine in a proper position, or that by placing the machine in any convenient position a greater number of holes could be drilled in the same time, and with the same expense for manual labour, the saving under the latter item more than counterbalancing the loss under the former. In driving large drifts, levels, and railway tunnels it might be better to have the machines fixed and the holes bored in an unvarying direction (not necessarily all alike) relatively to each other and the contour of the face; so that in such cases a greater number of holes might be bored in the same or less time; and although each separate shot might have less effect, yet the total effect of a great number of holes (which might be fired simultaneously) would in a pecuniary and time point of view more than counterbalance that of a smaller number of well directed shots, with the extra expense incurred in time and labour in altering, adjusting, and fixing the machines.

The machines should possess a very simple, efficient, and durable construction. The first of these is not an indispensible requirement, for simplicity and complexity are but comparitive terms, depending greatly on conditions to be fulfilled, and that simplicity which often accompanies inefficiency cannot be considered as such. If the construction, however, is such that repairs needed do not require a great degree of skill, but can be readily effected by an ordinary mine or colliery blacksmith or mechanic, it may fairly be supposed to fulfil the requirements of simplicity. The construction of the valve motion, and the arrangements for causing the rotation and gradual advance of the cutting tool should be such as are not liable to be put out of order by the shocks and vibrations to which the machine is subjected, and the latter motions should be self acting; a deficiency on this ground occurs chiefly in the first inventions. Although we have mentioned that the machine should not be so heavy as to make its adjustment and fixing by two men a matter of difficulty, still on the other hand it should not be too light, as the efficiency of the machine requires that when at work it should have considerable inertia, so as to be steady when held partly by the hand, as in some cases, and the shocks and vibrations which chiefly damage the machine are thereby greatly diminished. Every machine, or rather the borer, should be capable of three separate distinct motions—a straight reciprocating motion, which causes the blow; a gradual rotation, without which the hole could not be drilled round; and, lastly, a gradual forward motion as the hole gets deeper. We shall see that these requirements were only partially fulfilled in an automatic manner in the first inventions. The drilling of holes in rock takes place on two principles, either by percussion or rotation of the borer.

PERCUSSIVE BORING.—Mining industry is indebted for the first impulse given to the invention of boring machines—or rock drills, as they are called, in contradistinction to the machines used for deep boring—not to its own wants, but to the necessities of railway enterprise. About the year 1845 M. Maus, who was engaged in the construction of the Turin and Genoa line of railway for the Sardinian Government was requested by them to make an examination into and to report upon the best means of traversing the Alps by railway. M. Maus had previously completed the arrangements for working heavy inclines in Belgium and Italy by means of a wire rope and stationary engines; but in this latter case he reported in favour of a tunnel 10 kilometres long between Modena and Susa, the ends of the tunnel being approached by inclines. The ordinary advance by hand labour and blasting, which could not be expected to average for a good sized tunnel above from 5 to 6 yards per week, would have required 35 to 40 years to complete the work, and as this rate was considered by far too slow, M. Maus having been granted a certain sum for preliminary trials, set to work to devise a boring apparatus.

This apparatus consisted of a large stage, or frame, carrying several horizontal rows of drills, which could slide horizontally backwards and forwards in guides or collars. By means of a solid collar on each of the chisels they were made to rotate after every blow upon their axes. The blow was produced by powerful springs placed behind the end of the chisel, a cam arrangement withdrawing the drills from the holes, and compressing the springs, which immediately after the passage of the cam forced the drill rapidly forward into the hole. The tunnel when finished was to be 26 ft. wide and 19 ft. 6 in. high, so as to have a double line of rails all the way. The leading heading was to be 14 ft. wide and 7 ft. high. The apparatus was made at the Seraing Works, in Belgium. The face of rock attacked at one time with the apparatus was 7 feet square. The motive power was obtained from water-wheels at the entrance to the tunnel, and transmitted by wire rope along pulleys.

In 1826 the use of compressed air for machinery for driving tunnels was suggested by Prof. Colladon to Brunel, then engaged in driving the Thames Tunnel, and in 1844 by Brunton for rock drills, and again in 1850 by Prof. Colladon to M. Santa Rosa to be used in driving the Mont Cenis Tunnel. In 1851 the principle was brought forward by Cave of making the drill a prolongation of the piston rod of a steam or compressed air cylinder.

In 1855 a patent was granted to Thomas Bartlett for a rock drill, which consisted essentially of two cylinders attached to each other.

One of these contained a piston driven by steam, the piston rod of which passed through the cover of the second cylinder, and was attached to the piston in the second cylinder. This cylinder contained a second piston, the rod of which passed out of the other end of the cylinder, and had attached to it the drill. During every stroke of the piston air was drawn into the second cylinder between the two pistons and compressed there on the return stroke. The forward motion of the drill was caused by the expansion of the compressed air. This machine was employed for some time at the driving of the Mont Cenis Tunnel, but afterwards replaced by Sommeiller's.

In 1856, encouraged by Count Beust, Modellmeister Schumann, of Freiberg, designed and constructed a boring machine, which was tried in connection with the driving of the Rothschönberger Stollen at Freiburg, and since then has been subjected to various alterations and improvements, and which in several places came for a short time into general use. It consisted of a cylinder 4½ in. in diameter and 8 in. long, attached to a frame, which is provided in front with two steel points, by means of which it is fixed in a position for boring the hole. The opposite end of the frame contains a nut, through which a strong screw passes, the end of the screw having a claw-shaped head fastened loosely (so that it can be rotated on the end of the screw as on a shaft), and which on tightening up the screw bears against a lid or stemple fixing the machine firmly in position. The admission of compressed air in the older constructions was by means of cocks; in later constructions by means of a slide valve which was worked from an eccentric attached to a cross shaft, the shaft being rotated by gearing from a crank, which was turned by the hand of the operator. The shaft carries an endless screw, which works in a worm wheel, and this latter gears into a small toothed wheel fitted to the boring rod, and thus causes the rotation of the latter. The boring rod is fixed to the piston rod, which passes through both cylinder covers, and has a weight attached to the top end to increase the momentum. That portion of the piston rod which passes through the lower cylinder cover is larger than that on the top side, thus being stronger for carrying the boring tool, and the area of the piston, which is pressed during the return stoke, is, as it should be, smaller. The cylinder is capable of being moved to and fro along the frame; two grooves are cut in the cylinder covers to fit the sides of the frame on which the cylinder rests. A forward or backward motion is imparted to the cylinder by means of a screw spindle, which passes through a nut fixed tightly to the cylinder. The screw spindle is rotated by means of a crank through the intervention of bevil gearing. To attend to the machine two men are required, one to turn the crank, by means of which the cylinder is gradually advanced as the hole gets deeper, and the other to turn the crank which works the slide valve regulating the admission of the compressed air, and causing the rotation of the borer.

A great improvement in Schumann's machine was devised and patented by O. Bergström, of Persberg, Wermland in Sweden, and by whom it was used in driving the Oskar Fredrick adit level. Bergström's rock drill consists of a cylinder provided with inlet and escape valves, just as in an ordinary locomotive cylinder, only that here the compressed air enters by what is usually the escape valve, and escapes by what usually are the intake ports. There is thus no valve chest to the cylinder, the compressed air escaping direct from the ports in the cylinder into the air. In place of the valve chest two short cylinders with their axes in the same line are cast on the main cylinders. The ends of the cylinders next each other are left open, only the front end of the foremost and the back end of the other being provided with covers, through which a common spindle rod passes. On this spindle rod two small pistons are attached, which slide within the two small cylinders just described. Close to the closed ends of these small cylinders two small openings are formed communicating with the escape ports of the large cylinder where these ports just enter the ends of the large cylinder. The slide valve is not attached to the spindle or piston rod of the two small cylinders, but has a round hole through which the spindle passes. Two large nuts are screwed on to the spindle close to the two small pistons. When the piston of the large cylinder is making a forward stroke the compressed air enters behind the piston of the small cylinder placed at the back, and drives both the small pistons forward, one of the nuts on the spindle strikes against the slide valve just before the completion of the stroke and cuts off the compressed air from the back side of the piston and admits it on the front side, causing the withdrawal of the drill. During this time the compressed air on the back side of the piston escapes direct into the air, and the compressed air in front of the piston passes through the opening we have just mentioned in front of the piston in the fore (small) cylinder driving the spindle back again, and at the completion of the stroke striking against the slide valve reverses the motion. In this manner an automatic backward and forward stroke of the piston of the large cylinder is obtained. A short guide is placed between the two small cylinders to guide the slide valve. The drill is cottered firmly into the end of the piston rod. The piston rod is hollow for three-quarters of its length—a little more than the length of the stroke, the opening being oval in section. In the hollow portion of the piston rod a solid rod oval in section where it passes in the piston rod fits, the rod fits in bearings in the back cover of the cylinder, and in which it can be rotated.

On the end of this rod outside the cylinder a large worm-wheel is keyed. This worm-wheel is driven by an endless screw or worm on a cross shaft. The shaft is rotated by means of two cranks and connecting rods, the latter being attached to a cross head cotte
to the front end of the piston rod of the small cylinders. A
wheel is fixed on the cross shaft. By these means a regular r
tion of the worm-wheel, and, consequently of the piston, pis
rod, and drill is kept up. The cylinder rests on a long frame for
of a long bar, one end of which is pointed, the opposite end ter
nating in a cross piece through which two screws pass, hav
claw-shaped heads, and by means of which the machine may
fixed tightly in position. The cylinder has two large lugs cast
it, through which the long bar of the frame passes. The ba
screwed for part of its length, on which a nut passes, the nut be
placed between the two lugs, which prevent it moving backwa
or forwards on the bar without at the same time carrying the
chine. The nut has a bevel wheel attached to it, and a second be
wheel rotated by hand gears into this first. By these means
cylinder can be advanced against the face or withdrawn as the h
gets deeper.

* Being Notes on a Course of Lectures on Mining, delivered by Herr Bergrath, Dr. VON GRODDECK, Director of the Royal Bergakademie, Clausthal, The Harz, North Germany.

INSTITUTE OF MECHANICAL ENGINEERS.

A general meeting of the members of the Association was held
Wednesday at Manchester, Mr. T. HAWKSLEY (the President) oc
pying the chair. Several notices of motion having been brou
forward,

The PRESIDENT announced that in the meantime between
next quarterly meeting the Council would propose, under the
vice of their solicitor, a statement on the new set of rules and re
lations which would be submitted for the approval of the membe
He also stated that the Council had appointed Mr. Walter R. Bro
(secretary to the Institution) in the place of M. W. P. Marsh
resigned, and that the next summer meeting of the Institute wo
be held in Paris. In a discussion which followed it was objec
that the Council had not the power to appoint the secretary,
that it must be left to the members, and ultimately the appoi
ment was altered to a nomination to be confirmed by the membe

The SECRETARY next read a paper by Mr. H. W. Widmark,
Bristol, on improved radial axle boxes and guides for locomot
engines, which was illustrated by a number of diagrams, and in t
course of the discussion Mr. Webb, locomotive engineer, Crewe,
scribed the principle adopted in the radial axle-boxes by the Lond
and North-Western Railway Company. He next read a paper p
pared by Mr. Charles Hawksley, of London, and Mr. Edward
Marten, of Stowbridge, "On Special Appliances for Meeting
Requirements of Certain Classes of Mine Accidents."

With reference to mechanical appliances for meeting certain classes of m
accidents, the writers of the paper pointed out that the danger incurred and
injury done by mine accidents were greatly aggravated by the insufficiency of
mechanical means available for grappling with the contingency, as, for instan
in the case of the sudden bursting of a flood of water from old workings. In s
an event the ordinary appliances for raising water were usually insufficient.
difficulty was a mechanical one—how to bring to bear in a short time a suffici
mechanical power to raise in hours a quantity of water that would otherwise
days when the question of life or death might be determined by the saving o
single day. They also remarked that on most occasions of mine accidents ma
special mechanical appliances were schemed and brought into use, and that fr
quently very useful and effective apparatus were improvised on the site of th
accident, great skill and ingenuity being displayed in its design and applicatio
but these highly valuable appliances had not only to be devised but also construc
after the occurrence of the accident, and subsequently the whole were lost
future emergencies at other places, being cast aside and forgotton after the temp
rary object had been attained. The need of some mechanical help for the pro
tion of explorers after explosions was particularly shown by the recent case of t
Pemberton Collieries, Wigan; also by the still more recent case of the Upper Bl
tyre Colliery, where considerable difficulty was experienced in entering the wor
ings in consequence of the presence of fire-damp. There were cases in which t
use of divers had been attempted in entering the mine or restoring the pump
machinery, indicating the usefulness of having at command specially trained dive
with diving apparatus suitable for employment in mines. It being manifes
impossible that every mine could be furnished with the requisite spare pumpi
power and other appliances needful to be held in reserve for meeting the vario
emergencies to which the mine might be liable, it was proposed by the writ
that a depôt should be established in a central situation, from which all parts o
the country could readily be reached by railway, at which there should be k
in readiness for immediate dispatch when needed specially arranged and power
pumping machinery and other apparatus adapted to meet the requirements mo
frequently arising in cases of mine accidents. An example of a provision of th
kind suggested might be found in the break-down gangs with their trains of s
pliances, so universally and efficiently employed on railways, and kept in readine
at convenient centres for immediate dispatch to the site of an accident. In co
sidering the general character of the special mechanical appliances best adapted
the purpose, the following requirements must be steadily kept in view:—Ease
transport, adaptability to various situations, rapidity of erection, duplication o
interchangeability of parts, non-liability to derangement, and facility for repa
The machinery and apparatus which it was most desirable to provide were prim
pally water-raising apparatus, for dealing with large quantities of water in a sho
time; portable boilers with fittings and steam pipes complete for promptly a
efficiently supplying with steam at a high pressure the pumping and other m
chinery; air-compressing apparatus for keeping back rising water and enabli
the mine to be entered before ventilation has been restored; air-locks, with pr
vision for quickly fixing them in the headings; ventilating apparatus for promp
restoring ventilation after an explosion; temporary winding apparatus for quick
replacing the winding gear over a pit when destroyed by an explosion, or to est
blish an additional means of communicating with the mine; diving apparatus
especially adapted for penetrating long levels under water; and temporary work
shop, fitted with complete sets of the tools likely to be needed. A hope was ex
pressed that these suggestions might lead to the organisation of an association o
mineowners for mutual protection against the calamitous result of mine accidents
by establishing a central depôt, with perhaps a branch in each mining centre, con
taining a complete collection of the requisite special machinery and appliance
ready for use at a moment's notice.

Mr. HAWKSLEY added that the paper was not intended to b
exhaustive, but was written rather with the view of drawing th
attention of mining engineers to the matter.

Mr. IRELAND said the authors of the paper evidently wished t
widen the discussion as much as possible; and before anything wa
said he wished to state the proportion of deaths from various
causes in Manchester and South Wales districts during the past te
years. The deaths from explosion in the South Wales district ha
been 30 per cent., and in the Manchester district 16 per cent. Th
deaths from falls of stone and roof were by far the largest, ranging
from 42 per cent. in South Wales, and 46 per cent. in the Manchester district
the fatal accidents in shafts were 12 and 15 per cent. respectively; and the misce
laneous accidents, which were largely attributable to the carelessness of the me
themselves, 16 to 21 per cent. respectively. The actual deaths from drowning in
the above districts were only very small in proportion, being only eight in South
Wales, and in the Manchester district only five. With regard to the proposal to
provide refuges for the men in case of accident, he thought this would be a very
good thing if they could provide separate and independent ventilation for these
refuges by means of pipes which would not be interfered with in case of accident
In answer to a question, Mr. IRELAND observed that the total number of deaths
in South Wales was 140 per annum, and in the Manchester district 72 per annum.

Mr. PAGET thought that it scarcely fell within the province of the Institution
to take the action suggested in the paper in the formation of mineowners organi-
sations, but it did fall within their scope to assist any body of mineowners who
might form themselves into an association for the protection of themselves against
the calamitous results of mine accidents, and the matter was of so important a
character that he thought it should be known that that institution would be will-
ing to give assistance by affording opportunities for the discussion of the question,
or to appoint a committee to collate and give information to the association upon
the subject.

Mr. DAVEY, of Leeds, said he had had personal experience of two or three seri-
ous mine accidents from the sudden inbursts of water, and he drew attention to
an appliance which he had invented for dealing with water in flooded collieries or
workings, which embraced an apparatus which could be lowered down to the
bottom of the colliery, and deal with the water there.

Mr. PRICE WILLIAMS, after expressing his approval of the suggestions con-
tained in the paper, observed that in the case of mine explosions it was a question
of minutes, and it would be well if at every colliery there were ready appliances
for compressed air as suggested. The great danger of collieries as they grew older
was that of sudden inbursts of water, and this made it very necessary that some
organisation, such as suggested, should be at once set on foot; and, if necessary,
he thought that pressure should be used to compel the formation of breakdown
gangs in the large colliery districts which should be contributed to by the colliery
proprietors. In Belgium he understood such organisations were already on foot.
He had not noticed any reference to a very ingenious method of getting rid of
bad air in mines by the ejection of a quantity of steam from the bottom, but this
had been done with very good results.

Mr. E. A. COWPER said some of the suggestions in the paper were very good,
but what was required was that they should show colliery proprietors some extra-
ordinarily good appliance for effecting the object in view, and unless they could do
that he was afraid they would not induce coalowners to lay out their money. He
thought there were many good appliances which, however, were only known in the
districts or the collieries in which they had been employed, and the diffusion of
the knowledge of which would be very useful. The first thing that was wanted
was ventilation, or the explorers must carry air with them, and the operations of
a small fan in doing this had been very effective. Another most necessary in-
strument required was a powerful portable pump, which could be at once put in
action when it was required, and the suggestion of Mr. Davey appeared to be some-
thing in this direction.

Mr. TWEDDELL suggested that the question was one for the miners as well as the
owners and the managers, and that if they would combine with the same vigour
to protect life and property as they had done to restrict the output they might do
some good. (Hear, hear.)

Mr. J HEAD suggested that as inventors were always ready to incur consider-
able expense in sending their appliances to foreign international exhibitions, they
would be willing, if colliery proprietors would provide suitable warehouses in the

neighbourhood of their mines, to send two or three of their appliances on exhibition to such warehouses, where they would be readily available in case of accident. Mr. RICHARDSON observed that the paper contained some very good suggestions for a district like the one in which they were assembled, and the idea brought out by Mr. Davey was excellent; the great object, however, would be to reduce the cost of the apparatus to the minimum. Many of the mines had been commenced with too little capital, the shafts had been improperly constructed, and this often led to the loss of a mine. He thought appliances in case of accidents at collieries should be provided on the same principle as fire-engines for cotton mills. Mr. BURTON thought there ought not to be any difficulty in forming associations such as had been suggested, and he urged the advantage of compressed air in the working of the mines after accident. Mr. SADDON, referring to the suggestion for the formation of mine owners' associations for providing appliances, said there was no desire on the part of those who managed collieries to spare one halfpenny where a single life was concerned, and he thought that mine managers and colliery owners were as careful of the lives of their workmen as any other employers of labour. This concluded the discussion, and Mr. HAWKSLEY briefly replied on behalf of himself and the other writer of the paper.

The paper, "On an Improved Construction of Hydraulic Presses for Packing Cotton, &c., with Improved Engines and Pumps," by Mr. R. WILSON, of Patricroft, was then read and discussed at great length

This closed the proceedings, and the President announced that the London meeting would be held on Jan. 31.

THE INSTITUTION OF CIVIL ENGINEERS.

The Council of the Institution invite communications, of a complete and comprehensive character, on any of the subjects included in the following list, as well as on other analogous questions. For approved original communications, the Council will be prepared to award Premiums, arising out of special funds bequeathed for the purpose:—

The Appliances and Methods used in different countries for Tunnel driving, Rock boring, and Blasting, with details of the cost and of the results attained.

The relative advantages of Wind and Water as Motive-powers, compared with Steam-power, and the Motors most suitable for utilising them.

Compressed Air as a Motive-Power, particularly as applied to Machinery in Mines and to Locomotives in Tunnels, with some Account of its application on the Continent.

The Manufacture of Mineral Oils, and the Lamps best adapted for their consumption in dwellings and lighthouses.

The "Output" of Coal in the United Kingdom, as compared with that of other countries, illustrated by statistics, showing where Coal is produced, where and how it is consumed, and the relative quantities exported.

The Methods and Machinery employed in sinking and in working deep Coal Pits.

Coal Depôts for Ocean Steamers, the various points involved in their management, and the methods of preserving large quantities of coal from deterioration.

The Metalliferous or other Mining Districts in different countries, and the mode adopted in working them.

The Methods employed in securing the Excavations in mining large and irregular shaped mineral deposits—for example, the Almaden Mines, the Great Comstock Lode, &c.

The appliances used in different countries for Dressing the Ores of Lead, Copper, Zinc, and Tin, and the Smelting of such Ores, with details of the results and cost by various methods.

The losses in the Reduction of Metallic Ores by different methods, distinguishing the losses in dressing from those in smelting.

The disposal and utilisation of slags from various smelting processes.

The Management of Underground Waters in mining districts, and the relative economy of distributed or trunk pumping engines, adits, &c., in particular cases.

The Appliances and Processes for the manufacture of Artificial Fuel in different localities.

SOUTH LANCASHIRE AND CHESHIRE COAL OWNERS' ASSOCIATION.—The annual meeting of members of this Association was held, on Tuesday, at the Queen's Hotel, Manchester, and there was a good attendance. Mr. Clifford Smith, of the Bridgewater Collieries, the President for the past year, who occupied the chair, delivered the annual annual address to the members. After explaining what had taken place at an interview with a deputation from the Association, who attended by arrangement at the offices of the Lancashire and Yorkshire Railway Company to meet the directors of that company, Mr. Smith proceeded to give a review of the various subjects which had occupied the attention of the Association during the past year. These comprised amongst other items the question of the opposition offered by the Inspectors under the Explosives Act to the practice of miners loading their cartridges in their own houses; the Valuation Bill, which had been introduced into Parliament without any clause providing for the uniform basis for the assessment of collieries, but which, owing to the pressure of public business, had been withdrawn. The opposition which had been offered to the bills of the London and North-Western Railway Company, the London and York Railway Company, and the Great Western Railway Company, who had introduced clauses affecting tolls, but which, owing to the opposition offered by the Mining Association of Great Britain, had been effectually modified; and with regard to the last-named of these bills, the President observed that before the referees of the House of Commons. The *locus standi* of the Mining Association of Great Britian to oppose any bill on the question of tolls had been formally sanctioned, and although in that case it only applied to a small local bill in the South of England, it practically extended their *locus standi* to all questions of tolls. The President also alluded to the fact that within the last few months the exertions of the trustees of the Upper Mersey dues, of whom Mr. Geo. F. Smith was the leading member, had resulted in extinguishing the tolls formerly paid on that part of the river, and also to the report of the Select Committee of the House of Commons appointed to enquire into the liability of masters for injury to workmen employed by them. Mr. Clifford Smith then retired from the chair, and Mr. R. Fletcher, jun., of the Atherton Collieries, was elected President for the ensuing year.

THE TELEPHONE IN COLLIERIES.—A number of gentlemen connected with the principal collieries in West Lancashire assembled at Prescot Colliery, belonging to the Wigan and Whiston Coal Company, for the purpose of witnessing experiments with Prof. Graham Bell's Telephone, but especially with reference to its use in the working of collieries. By an adaptation of Mr. Hall, Government Inspector of the mines of the district, one of Mr. Biram's anemometers used in collieries for testing the velocity of air passing through the workings had attached to, it instead of the regulator, a telephone, and it was to test whether the state of the ventilation could be ascertained at the surface that the experiments were made. Instead of the ordinary diaphragm, a small thin iron bar was substituted in the telephone attached to the anemometer, every tenth revolution of which caused this bar to vibrate. An anemometer thus provided was connected with the telephone placed in the colliery offices, and then taken down the shaft and fixed in the main intake—an ordinary coated electric wire, some 600 yards long joining the two instruments. Mr. Hall and a party of underground managers had charge below ground. The vibration of the anemometer was distinctly heard by the instrument in the office, and it was found to give 28 beats to the minute, or 280 revolutions, which, multiplied by area of airway, showed the quantity of air passing. The result was considered eminently satisfactory, and was communicated to Mr. Hall. Experiments in speaking to those in the mine were then made, and Mr. Hall recognised the voices of several friends. At times word was sent from below that they could hear noises going on in the room, conversation between several of the gentlemen taking place, and this interfered with the distinctness of the messages. On the conclusion of the experiments, Sir W. Thomson, using the telephone, addressed a few words to those present, and to Mr. Hall. He expressed himself as both delighted and astonished with the result of the experiments. Never before had he heard the voices more distinct, and the experiments were very satisfactory. He explained the difference between previous telephones and Prof. Bell's, and said that although he had often tested the telephone he had never before seen it made of practical use as in the present case. The experiments were conducted by Mr. A. Foster, of the India-rubber and Gutta Percha Telegraph Company, makers of Bell's Telephone.

TUBE WELLS.—At the Society of Engineers, on Monday (Mr. Thomas Cargill, C.E., the President, in the chair), a paper was read by Mr. Alfred Le Grand, on "Tube Wells." The paper dealt with the subject of tube wells, commonly known as "Abyssinian," which were introduced about ten years ago by Mr. J. L. Norton. The author described the system as a modified form of pile driving, employed to drive tubes into the earth, principally in search of water-bearing strata, thus obviating the necessity of well-digging. A tube, furnished with a steel point, and perforated near the end, is driven by a hollow weight, which is guided by the tube, and which falls upon a clamp bolted to the tube. Tubes are added by screwing them on like gas pipes. When water is reached the fine particles of the soil are pumped out until a clear natural filter remains around the perforations. In favourable soils the tubes can be driven to considerable depths, and if the water when tapped does not rise within lifting reach of a suction pump a long-barrelled pump, formed of the tube, can be driven, and the rod carrying the pump-bucket works inside the tube by means of a lever fixed above the surface. These wells can be withdrawn when required and re-driven in a fresh spot. The author described a new method of driving tubes, which has recently been introduced by Messrs. Le Grand and Sutcliff, and which consists of driving them by means of an elongated weight, which passes down the inside of the tube, striking its blow immediately above the point. This method of driving is particulary suitable for operations carried on under water, and is thus applicable for driving piles, telegraph, and other posts. The smaller wells and apparatus are principally adapted for small supplies of pure water, from 300 to 500 gallons per hour, and applicable for household purposes, for the supply of moderate sized boilers, and for campaigning and exploring expeditions. The author reserved the description of tube wells of increased size for large supplies of water for another paper, which is to be read before the Society at the next meeting. —At the meeting the following gentlemen were duly elected —as members, Mr. John Hope Calcott, Mr. Henry William Hughes, and Mr. Edward Ellison Prichard; and as associates, Mr. Robert William Bisset Creeke, and Mr. Harry Townsend.

PURE CARBON GAS.—A demonstration was made at the Collinge Engineering Works, Westminster, on Saturday, in the presence of many English and foreign scientific gentlemen, of Symes' patent process of manufacturing gas, a process adopted by the Pure Carbon Gas Company. The advantages claimed for this process are—that the gas is more economically produced than by any other; that the illuminating power is vastly superior; that the product is free from sulphuretted hydrogen or ammonia; that the manufacture can be carried on by unskilled labour; and that the system may be cheaply adopted for villages, ships, and isolated buildings, which at present cannot have the advantages of gas light. The demonstration on Saturday was purposely made on a small scale, in order to show that little room and little skill were required. The retort and furnace occupied a space usually taken up by a domestic copper, and the purifiers did not take up more than a few feet of space. This small apparatus, it was stated, was sufficient for 50 lights. The principal point in the process is that it utilises nearly all the tar in the coal, for instead of the tar being carried off as a product, it is regenerated by being carried back into the retort; and by this means 13,000 cubic feet of gas is made out of 1 ton of coals, in place of the ordinary 10,000. As the gas is passed from the retort it is carried over the surface of water by an ingenious method, so as to purify it from ammonia. The gas then passes through a lime purifying machine, by which to extract the sulphur. Ordinary gas is considered good by the Board of Trade if no more than 25 grains of sulphur are found in 100 ft., while the Symes' gas is certified by eminent chemists to contain no more than 2·1 grains in 100 ft. The coke is thrown out cool, so that there is no escape of vapour in the cooling process. The gas made on the occasion was exhibited half and fully purified; and in contrast to ordinary gas burnt under exactly similar conditions, the light given was certainly superior. The manufacture as shown seemed very simple, and it was claimed for the apparatus that an ordinary labourer can use it, making gas at the cost of 1s. 6d. the 1000 cubic feet. Shale, an almost worthless material in Dorsetshire, can also be used and converted into gas, but there are no known means of correcting the offensive smell given off on the burning of shale gas.

EXTRACTING FOUL AIR FROM MINES.—The object of the invention of Mr. J. EDWARDS, of Chorley, is to save life and property in coal and other mines by the extraction of the foul air and gases accumulating and confined for want of a constant current of air which he obtains by first extracting such foul air or gas, and providing a clear passage for a current of air from the mouth of the shaft or mine, and this being constant, all danger from fire or explosion is removed. To effect this he fixes at the top or bottom of shaft or entrance to a mine a steam-engine, by which he works a fan or exhaust or vacuum pumps, or their equivalents. From these he carries perfectly air-tight exhaust pipes branched to any part of the workings in the mine. When the apparatus is fixed at the bottom of the shaft in the pit he carries a delivery pipe considerably larger than the suction up the shaft, and outside of the pit a natural current of pure air from the mouth of the pit will take the place of the foul matter extracted, and should not such be the case to the extent required by the rapid accumulation of foul air or gases, he places similar fan or force pump to draw the pure air from the mouth of the pit into the several workings. He carries a main suction pipe into the main gangway of the mine, from which there are branches to the workings right and left, and where convenient at the top of such gangways, suspended in the main pipes, he places midfeathers to guide the current. He likewise bells the mouths of the suction pipes for extracting and in all branches, and for pure air delivery he bells such deliveries, so that in the suction it has a free ingress to main suction pipe, and in delivery a spreading egress to all parts of the workings. The midfeathers are to keep the several draughts from coming in contact and interfering with each other. To each of these branch suction or delivery pipes close to the main he places a door or valve, so that should anyone of these side workings be stopped or worked out, or not required from any other cause, its connection is cut off until required again. Such connections are made for the pure air feed likewise, only the action and midfeathers will be reversed, and instead of being suspended at the top of the gangway will be laid on the floor, leaving sufficient room to carry on the work. By these means the managers or overlookers will have full control over the ventilation.

PREVENTING LOSS IN UTILISING WATER-POWER.—With a view to utilise water-power more completely than has hitherto been the case, and it is well known that much power is lost in the usual constructions of water-wheels and turbines, Mr. JULIUS HASSLER, of Steyr, Austria, has invented some improvements in hydraulic engines. The arrrangements consist essentially in arranging a bucket or other receiver at each end of an oscillating beam, and alternately filling and employing the said buckets or receivers. The beam is supported on an axle at its centre, and whenever the bucket at the one end of the beam is filled, and the other bucket at the other end of the beam is emptied, the one end of the beam will fall and the other end will rise. In this way a continuous oscillating motion of the beam can be obtained, and by connecting the beam axle with a crank and connecting-rod to a fly-wheel, rotary motion will be obtained, which can be conveyed by gearing to any machine to be set in action. The supply of water to the buckets may be regulated by a cam on the fly-wheel striking against levers connected with the supply valves. The buckets may be emptied by striking against a device arranged at the point to which they sink, and which device may be made either to tip the bucket over, or to open a valve in the bottom of the said bucket or receiver. The fly-wheel may be made to drive a governor regulating the main supply of the water by causing a sluice valve to rise or fall.

MOTIVE POWER.—If a frictionless, or nearly frictionless, piston is shot by atmospheric pressure and energy into a cylinder in which a vacuum exists, the force of impact, after the piston has travelled a short distance and it strikes a solid surface, is greater than that required to bring back the shot piston to its original position. This being so, Mr. EDWARD CLAVEQUIN, of Monkstown, Dublin, has two cylinders, each provided with a shot piston, and with a second piston connected with the shaft. This second piston, which receives the impact, is composed of two parts, and each part is itself a perfectly air-tight piston; the part which receives the impact works into the second part, which is partly hollow, to allow proper play to the first. Between the two parts of this double piston air is contained, which becomes compressed by the energy of the aforesaid impact and drives the second part. To this second part of the double piston is attached the piston rod which connects it with the shaft. The return of the shot pistons is obtained by means of wheels partly toothed taking in the racked part of the rod of the shot piston. When the toothed part of a wheel has brought the shot piston to its proper position, the teeth failing the shot piston is shot upon the second piston by the atmospheric energy. If the shot pistons are shot alternately, each may be made to effectuate the return stroke of the other, and inexhausted energy may be made useful for driving machinery or other purposes. The toothed wheels are put in motion by an endless rope or a cranked rod connecting their axle with the shaft. One cylinder only would suffice, as in that case energy might be stored in applied to the return stroke. Instead of the atmosphere, the open end of the cylinder might be made to communicate with a reservoir of air, and a greater or lesser energy might be produced, according to the pressure. He mentions that the racked rod of the shot piston is crossed by a bar of metal with extremities bent at right angles, which are made to impact on metallic blocks so as to exhaust the unspent energy before each return stroke.

FOREIGN MINING AND METALLURGY.

Winter has not come on very quickly in Belgium this year, and the demand for domestic qualities of coal has sustained a certain check in consequence. Some Belgian collieries which have been working six days in each week will be obliged to restrict their working operations unless their managers are prepared to witness an accumulation of stocks. Upon the whole, the situation has not been brilliant, and prices remain low. In industrial qualities of coal there is no important change to notice; the great difficulty which has to be dealt with is the depressed condition of the iron trade. Several colliery managers are profiting by the present dull times to complete and improve their working appliances. The United Collieries Company has established works for the production of agglomerates at Couillet; these works are capable of turning out 800 tons per day. Both the imports of coal into Belgium and the exports of coal from Belgium have declined in the first nine months of this year as compared with the corresponding period of 1876; the decline in the exports exceeded the reduction in the imports. The John Cockerill Company commenced the payment on Monday of its dividend for 1876-7—1*l.* 8s. per share.

The Westphalian Coal Export Association has published statistics showing the quantity of Westphalian coal exported *via* Hamburg. The exports during the first nine months of the current year have amounted to 153,000 tons, being in excess of the exports for the whole of 1876, the total for which year was 144,240 tons. Should the exports for the present quarter continue on the same scale as those for the past three quarters, they will this year exceed last year's figures by 60,000 tons, or about 45 per cent.

Official returns show that the production of pig-iron in France in the first half of this year amounted to 762,873 tons, against 711,643 tons in the corresponding period of 1876. The production of iron was 375,146 tons, against 365,754 tons; of plates, 63,314 tons, against 59,351 tons; and of steel, 110,465 tons, against 113,113 tons. The accuracy of these returns has been rather called in question, and they certainly do not agree with the statistics recently issued by the committee of French forgemasters. There has been little change in the general position of the French iron trade during the last few days. The Hammont Rolling Mills are about, it is stated, to be again brought into operation.

There has not been much to report with respect to the French coal trade. Only comparatively small orders have been given out, as industrials and manufacturers have been awaiting the course of political events. The autumn having been prolonged beyond the ordinary limits, supplies of household coal have been laid in without any embarrassment or haste, and prices have lacked in consequence one element of support of which they have usually the benefit at this period of the year. The terrible explosion of fire-damp in the High Blantyre Colliery has called forth a good deal of attention and sympathy in France; the opinion seems to prevail that the disaster indicates the necessity of a telegraphic meteorological service in connection with mines, as sharp barometric variations have something to do with fire-damp calamities.

Orders for rolling stock which have been recently obtained by some of the Belgian works have given a little more courage to Belgian industrials. A further order for 100 goods trucks has been divided between MM. Cabony, Noulet, and Rollin; the Belgian Colliery and Metallurgical Company will also supply 60. These orders are to be executed quickly, and in these times of torpor and depression the Belgian works will be ready enough to make deliveries quickly and cheaply. At the same time it should be remarked that all works which have established a good reputation have a fair current of orders, not, perhaps of much importance, but sufficient to keep them fairly active. The Montigny Works, which were recently purchased by M. Delloye, are to be repaired and brought again into activity; these works have some good tools, but their buildings are a little out of order. The plate train on the Lauth and Deby system which the Centre Rolling Mills Company has established in its rolling mill at La Louviére has been in full operation during the last fortnight, and has yielded excellent results. Official Belgian returns show that the imports of minerals and limailles into Belgium in the first nine months of this year were rather more than in the corresponding period of 1876, but less than in the corresponding period of 1875. A similar observation may be made with regard to rough pig and old iron. The imports of rails and other descriptions of iron into Belgium have presented little variation in each of the three years. The exports of iron minerals and limailles from Belgium have largely increased this year. The exports of rough pig and old iron have, on the contrary, diminished this year. The exports of other descriptions of iron from Belgium have presented little variation during the last three years.

INVESTORS' HAND-BOOK.—Under this appropriate title Mr. Chas. Thomas, F.S.A., F.G.S., of No. 3, Great St. Helen's, has issued an elaborate work (in 552 pages), which contains valuable and reliable information regarding the different descriptions of investments known to the public. Avoiding all unnecessary detail, Mr. Thomas has arranged his facts and figures in an attractive and easily comprehended form. One commendable feature of the work is that it enables a fair conclusion to be arrived at regarding the average amount of interest to be obtained on the various classes of securities which are available for the investment of capital, clearly distinguishing those which are risky from those which are of a safer character. To the readers of this Journal, one portion of the work which will be perused with the greatest interest is that which treats of mines and mining. As a practical mining engineer, and also well acquainted with the Mining Share Market, Mr. Thomas is able to deal with this subject with the clearness and fulness which its importance demands. The chapters devoted to the Antiquity and Progress of Mining, the Working and Development of Mines, the Success of Mining, and particulars of the Different Mining Districts of Great Britain, are especially worthy of perusal. The advice given by the author is thoroughly sound, and worthy the careful consideration of intending investors. On the whole, it is the most reliable work of the kind for the general reader which has come under our notice.

TEN YEARS IN SOUTH AMERICA.—Two interesting little volumes, each complete in itself, though forming part of a series treating of the various Republics and States of South America, have just been completed by Mr. BENJAMIN S. DINGMAN (Montreal: Gazette Printing House. London: TRUBNER and Co., Ludgate Hill), and should be carefully read by all interested in the history, products, and commercial resources of the more civilised portion of South America. From the large amount of British capital invested in those parts, the information given is precisely that which should be within the reach of Englishmen, and as Mr. Dingman writes after ten years' actual residence in the States treated of, the value of his records cannot be disputed. The mineral wealth of Peru, which is fully treated of in the first part, and that of Bolivia, which is dealt with in the second part, will be fully treated of in next week's *Mining Journal*, but in the meantime it may be stated that in no other book upon the subject are so many useful particulars brought together in so small a space.

SUPPLYING FUEL TO FURNACES.—Some further improvements in his apparatus for supplying fuel to steam-boiler and other furnaces have been invented by Mr. JAMES PROCTOR, of Burnley. For operating the flaps or doors used for throwing the fuel into the furnace he dispenses with the end vertical shafts and worms, employing a single shaft and worm near the central line of the boiler's front; these operate a cross shaft, to which both the flaps or doors are attached, so that the latter are actuated simultaneously. The ram

for moving the fuel to the flaps or doors he constructs in two parts or halves (that is to say, two short rams), and connect these by means of a spindle or shaft, having a right-handed screw at one end, and a left-handed screw at the other end, so that on the spindle or shaft being caused to rotate by pinion, segment, wheel or rack, the screws will move the two halves of the ram outwards and inwards, so supplying the fuel to both flaps or doors simultaneously. For operating the crushing rollers or feed hoppers he employs a ratchet wheel and pawl or catch actuated by a lever motion. The improvements in rams above described, and the improvements relating to the actuating the feed rollers or hoppers are applicable to self-acting stokers generally.

WATSON BROTHERS' MINING CIRCULAR.

Ten years ago the weekly information which had previously been published for a great number of years in WATSON BROTHERS' Mining Circular was transferred to the columns of the *Mining Journal*, with he following announcement; which is now reproduced in consequence of the numerous letters and enquiries handed to them of late in reply to one which appeared in the Journal on the Clementina Mine.

The great extension of mining business, the difficulty so often complained of by country shareholders in getting accurate and disinterested information as to the state of Cornish and Foreign Mines, and of the financial and real position of mining companies generally, have induced Messrs. WATSON BROTHERS to make their Circular now published in the *Mining Journal* more extensively known, and o state—

That they issue daily to clients and others who apply for it a Price List (as supplied to most of the London and country papers), giving the closing prices of Mining Shares up to Four o'clock.

They also buy and sell shares for immediate cash or for the usual fortnightly settlement in all Mines dealt in on the Mining and Stock Exchanges, at the close market prices of the day, free of all charges for commission. They deal also, on the same terms, in the Public Funds, Railways, Telegraphs, and all other Securities dealt in upon the Stock Exchange.

Having agents in all the mining districts, they are constantly getting mines inspected for their own guidance, and will also obtain special reports of any particular mine for their clients, for the inspecting agent's fee of £2 2s.

In the year 1843, when mining was almost unknown to the general public attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring the success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and sharedealing than there is at present; and from the lengthened experience of Messrs. WATSON BROTHERS they are emboldened to offer, thus publicly, their best services and advice to all connected with mines and mining.

Messrs. WATSON BROTHERS are daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

WATSON BROTHERS,

MINEOWNERS, STOCK AND SHARE DEALERS, &c.,

1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

PARYS MOUNTAIN.—The petition by the holder of 25 shares to wind-up this company came on for hearing before the Master of the Rolls on the 3rd inst., and was at once dismissed with costs. It has, however, had its good effects in one sense, and by it we have been enabled to stir up the shareholders to a knowledge of the true value of their property, and the necessity of taking up Morfa-Du, in order to provide capital for it. When the petition was presented the assets and liabilities of the company were ascertained by the directors. The latter amounted to 2000*l*. The former, consisting of copper ore, precipitate, &c., raised, paid for, and in course of preparation for sale, was estimated by the agent at about 2800*l*., so that in the realisation there would be a balance of 800*l*. This was independent of the machinery, which cost 10,000*l*. The present position of the company, and upon which the shareholders may be congratulated, is this—they have a clear working capital of 5000*l*. to receive from Morfa-Du, 1000*l*. of which, according to agreement, has already been paid over.

MORFA-DU has all its machinery erected, and the agent calculates that to sink the shaft upon the blue stone 10 fms. deeper, and so make good returns, would cost 700*l*. to 1000*l*. For this work the company will now have a capital (after paying Parys 5000*l*.) of upwards of 2000*l*., and a reserve of 4000 shares.

The shaft will be sunk on the course of the lode of blue or zinc stone, and make returns at once, and it is our opinion—and that of most of those persons who have seen it—that this extraordinary conglomerate called bluestone is overlying some great deposit of other mineral, and that "sinking the shaft" may any day result in some great discovery; and now that all is settled as it should be we congratulate the shareholders in Parys Mountain and Morfa-du on having two among the best speculations of the day, and with capital to work them; and the thanks of the shareholders are especially due to the *Mining Journal* for the space allowed on so many occasions to fight their battle without a single advertisement.

SULPHATE OF BARYTES.—If "S. P.," of Pontesbury, will kindly read our remarks again he will see that we referred to *pure white*. We are perfectly aware that large quantities of barytes are raised in Shropshire, but not such as we speak of, while the price (so far as our experience goes, for at one mine in Shropshire where we are interested barytes has been lying for some time unsold) does not pay sufficiently.

TRELEIGH WOOD.—Our correspondent will have seen in last week's Journal that no call was made at the meeting. The mine has large quantities of low-priced tinstuff that could not be worked to any profit at the prices which have ruled for tin of late, but which will come into play as the price of tin advances. The shares were at 40*l*. each when tin was at 90*l*. per ton; there are now, through relinquishments, only about half the number of them, and it is difficult to get a quotation. They should rather be bought than sold.

NORTH LAXEY.—We can only answer this question privately.

CLEMENTINA.—The bottom level having drained the 25 fm. level, a winze has been commenced, worth over 1 ton of lead ore per fm.

D'ERESBY.—We firmly believe that when the wheel and crusher are up this will prove one of the best mines in Wales. We have private reports from two agents this week. One writes—"I have been examining the great lode in No. 4 adit, and the more I see of it the more favourably I am impressed with its value. I may venture to say there is not another lode of the same calibre, and at the same time possessing such beautiful characteristics for producing lead in the whole district." Under date of yesterday the agent writes:—"The large lode at No. 4 deep adit is 30 ft. wide. We have put the pare of en l men to work on this lode for the last day or two, and I am glad to say that they have broken down a good pile of lead work. It is the finest looking lode that I have seen since I have been in this part, and no one can see a finer-looking lode in England or Wales."

SATURDAY, Nov. 3.—Good demand for tin shares. Market closes very firm, with an upward tendency. Carn Brea, 55 to 60; Dolcoath, 40 to 45; South Condurrow, 9⅝ to 10¼; South Frances, 2⅛ to 3; Tincroft, 18 to 20; West Frances, 5⅛ to 6⅛; Grenville, 4 to 4⅛; Agar, 4 to 4⅛; Peevor, 6½ to 7⅛; Bassett, 16 to 18. East Vans are firmer, at 3⅛ to 3¾; Glenroy (Lead), 17s. 6d. to 20s.; Great Laxey, 21 to 22; Rookhope Lead, 21s. to 23s.; Van, 32 to 34; Leadhills, 4⅞ to 5⅛; Roman Gravels, 7¼ to 8; South Roman Gravels, 10s. to 15s.; North Laxey, 10s. to 12s.; Parys Mountain, 10s. to 1 s.; Tankerville, 4⅞ to 5⅛; West Tankerville, 15s. to 20s.; West Chiverton, 13 to 14; Wye Valley, 2⅛ to 3; West Wye Valley, 3 to 3⅛; Richmond, 7⅛ to 8; Eberhardt, 6⅛ to 7.

MONDAY, NOV. 5.—Market again firm for tin shares. Carn Brea, 55 to 60; Dolcoath, 40 to 45; Cook's Kitchen, 4 to 4⅛; South Condurrow, 9⅜ to 10⅛; South Frances, 3 to 4; Tincroft, 19 to 20; West Basset, 15 to 20; East Van, 3½ to 4; Great Laxey, 21 to 22; Parys Mountain, 11s. to 13s.; Van, 32 to 34; West Tolgus, 69 to 71; Rookhope, 20s. to 22s. 6d.; Tankerville, 4⅞ to 5⅛.

TUESDAY, NOV. 6.—The rise of 5*l*. per ton in the tin standard caused a great demand for tin shares at advanced prices. Carn Brea, 57½ to 6 .½; Cook's Kitchen, 4⅛ to 5⅛; Dolcoath, 41 to 43; South Condurrow, 10 to 10½; South Frances, 4 to 6; Tincroft, 19 to 21; West Frances, 5 to 6; Grenville, 4 to 4⅛; Peevor, 6 to 7; Great Laxey, 21 to 22; Glenroy Lead, 15s. to 20s.; Parys Mountain, 10s 6d. to 12s. 6d.; Rookhope Lead, 20s. to 22s. 6d.; Tankerville, 5 to 5¼; Roman Gravels, 7⅛ to 8; Van, 32 to 34; West Chiverton, 13½ to 14⅛; West Tolgus, 69 to 71; North Laxey, 9s. to 11s.; East Van, 3¼ to 4; Richmond, 8¼ to 8½; Javali, 6s. to 8.; Eberhardt, 6¾ to 7; Flagstaff, 2¾ to 2⅞; Frontino and Bolivia, 3 to 3¼.

WEDNESDAY, NOV. 7.—Market very dull, and tin shares offered at reduced prices. Carn Brea, 55 to 57½; Cook's Kitchen, 4 to 5; Dolcoath, 38 to 40; South Condurrow, 10 to 10¾; South Frances, 4 to 5; Tincroft, 18 to 20; Grenville, 4 to 4¼; Agar, 4 to 4¾; Great Laxey, 21½ to 22½, and firm; Glenroy Lead, 15s. to 20s.; Rookhope Lead, 20s. to 22s. 6d.; Van, 32 to 34; East Van, 3¼ to 4; Roman Gravels, 7½ to 8; South Roman Gravels, 10s. to 15s.; Leadhills, 4⅞ to 5⅛; Ladywell, 17s. 6d. to 22s. 6d.; North Laxey, 9s. to 10s.; Parys Mountain, 10s. 6d. to 12s. 6d.; Pateley Bridge, 2 to 2¼; Penstruthal, 5s. to 7s.; Tankerville, 5 to 5¼; West Chiverton, 13¾ to 14½; West Tankerville, 15s. to 20s.; West Tolgus, 69 to 71; Richmond, 8½ to 9; Eberhardt, 7 to 7¼.

THURSDAY, NOV. 8.—Market for tin shares depressed. Carn Brea, 50 to 55; Dolcoath, 35 to 40; Cook's Kitchen, 3½ to 4⅛; Tincroft, 17 to 19; South Condurrow, 9⅛ to 10; South Frances, 3½ to 4½; Agar, 3½ to 4; Grenville, 3 to 3½; Peevor, 5 to 6; Wheal Kitty, 2 to 2¼. Lead shares steady. Van, 32 to 34; Rookhope Lead, 21s. to 23s.; Tankerville, 5 to 5¼; East Van, 3½ to 4; Great Laxey, 21½ to 22½; Leadhills, 4⅛ to 5⅛. Parys Mountain firm, at 11s. to 13s.; West Pateley Bridge, 1¾ to 2; Wye Valley, 2 to 2¼; West Wye Valley, 3 to 3¼; Richmond, 9 to 9⅛; Eberhardt, 7 to 7⅛.

FRIDAY, NOV. 9.—Market for tin shares quiet. Carn Brea, 50 to 52½; Dolcoath, 35 to 40; South Condurrow, 9¼ to 9¾; Tincroft, 17 to 19; Agar, 3½ to 4; Grenville, 3 to 3½; Great Laxey, 21½ to 22½; Glenroy Lead, 15s. to 20s.; Van, 32 to 34; Parys Mountain, 11s. to 13s.; Rookhope, 21s. to 23s.; Tankerville, 5 to 5¼; Richmond, 8¾ to 9; Eberhardt, 6¾ to 7¼.

Original Correspondence.

MINING IN THE EAST—No. XXII.

CONTACT DEPOSITS OF THE BANAT.

ORAVICSA AND CSIKLOWA MINING DISTRICT.—The town of Oravicsa has for hundreds of years been celebrated as the headquarters of mining in South Hungary. The Berghauptmannschaft, or Bureau of Control for the transaction of all mining business, occupies a large and commodious building in the best portion of the town. From these offices all licenses or leases of mining fields must be obtained, and disputes concerning concessionary rights decided. The mining laws of Hungary, though they occasionally press somewhat heavily on the landed proprietor, who derives no direct benefit from the mining operations which disfigure his fields, are eminently calculated to encourage the search after metals and minerals. To secure the exclusive right of search it is simply necessary to define a point where mineral is believed to exist, when, on payment of 4 fl., a license is granted, which enables the prospector to work during 12 months over the area of a circle 240 fathoms in radius. By a series of interlocking circles any extent of surface can be pre-empted, and held in this way as long as the licenses are annually renewed. It is true the laws provide that the grantee must do a certain amount of work, but this is never enforced unless the same ground is denounced by another. When the lode or seam is sufficiently explored to determine its strike and dip a mining concession—which confers several valuable privileges—can be obtained.

During the 18th century Oravicsa was a much more important place than it is at present, as, besides being the centre where all mining business for the Banat was discussed and arranged, the affairs of the Servian mining and smelting establishments, which were opened and reinstated by the Austrian Government after the peace of Passarovitz, were administered by the same staff of officials. The mines were then governed with almost military strictness, the status of each officer was distinctly defined by facings, the miners also wearing a uniform which, though showy in appearance, was excellently adapted to their underground labours. The miners were banded together by a Bruderlad, or benevolent society, whose regulations required that each workmen should permit 5 per cent. of his earnings to accumulate in order to provide means to assist the sick or disabled. The organisation of this society, which still flourishes, is very complete. The money collected from the operatives is supplemented by a provision of the Austrian Code des Mines, which requires every mining company to subscribe a sum equal to half the aggregate amount paid in by the members. Its rules are admirably framed, and so well administered that all demands are promptly met, and a large reserve fund for contingencies amassed.

The number of central offices located here employing, in conformity with the continental system, a redundancy of officials attached or disposable, enables the town to retain the semblance of its former active and prosperous existence. On market days the Wallachian peasants, who compose the bulk of the farming population in the Banat, drive joyously into the town to dispose of their produce, their two-horse wagons overflowing with wives and children, displaying in profusion the gaudy finery so dear to the people of that race, and sourrounded by the flowering branchlets with which every Wallach delights to decorate his vehicle. The farmers and their sons are still more gaily attired, if possible, than their women, their favourite collar being a brilliant red relieved by bronze or yellow lace. The complex figures embroidered on every available part of the national surtout of sheepskin are singularly fantastic, and would prove invaluable to a designer of paper-hangings. The woollen unmentionables of a cut that would bewilder the inventor of the 16s. tights, are also scrolled with intricate *fleurs-de-lis*. The Wallachian female, who, whether at home or wandering, is rarely observed without her spinning apparatus, is clad in a rustic wollen garment of her own fabrication, which thrown loosely over the shoulders reaches to her knees. Shoes are considered an incumbrance, and only on fête days is the infliction endured. She adorns herself with a pair of gorgeously interwoven aprons, which hang from the waist as well posteriorly as in front. In their preparation is the time of her girlhood passed, and striving to excel she employs all her ingenuity and the hues of the prism in the designing and embellishment of these curious articles of attire. On festivals throngs of merry chatterers, speaking numerous languages, promenade the single street to which the narrowness of the valley has confined the town. The patriotic Magyars in their unassuming apparel, the intelligent Germans wearing the facings required by their professions, the miners clad in neat and appropriate uniforms, mingling with the Wallachs in their gorgeous oriental costumes, combine to form a scene particularly exhilarating and pleasing to a foreigner.

Although but a small town, owing its existence to the numerous valuable mines for which the vicinity was a century past so famous, the fondness of the South Germans for excitement and pleasure has developed a theatre, in which the inhabitants give really creditable amateur performances, an oratorical society, where the singing is above mediocrity, and a public garden, where the townsfolk meet at eventide to unbend after the toils of the day, and enjoy themselves unrestrainedly under the shade of its charmingly wooded glades. Those who desire active amusement can indulge in American bowls and rifle shooting, or thread the mazy dance to the exhilarating strains of a good gipsy band. This garden is a most valuable institution, in which all assemble for relaxation, and where a polite deportment checks any undue familiarity amongst the different classes.

In Hungary one never encounters the somewhat rugged and haughty demeanour of the North Germans, and one misses also their harsh gutturals so distressing to the unaccustomed ear; on the contrary, both language and manner are toned down to almost oriental softness, induced by the proximity of races of Eastern origin. Though all classes from the highest to the lowest possess an unaffected politeness, which finds expression in real kindnesses, yet the western frankness is still apparent, and the teutonic restlessness and energy sufficiently evident.

The town of Oravicsa straggles along the windings of a valley from the foot of the crags to its debouchement on the Versecs Plains. It is from 800 to 900 ft. above the level of the sea, encompassed by a majestic escarpment of limerock, which resting on lias, sandstones, and shales reach an elevation of 2500 ft. Although the sanitary condition of the town is as wretched as can well be imagined, yet owing to the influence of the surrounding highlands it is not unhealthy. In summer the heat is ameliorated by the cool breezes from the mountains, and the same mountains protect it from the chilling blasts of winter. The temperature reaches a maximum in July of 88° Fahr., and a minimum in December of 1° Fahr., the average for the year (1871) being 50° Fahr. The variation of the magnetic needle in 1871 was 9° 18' west.

In a long parallel valley situate 1 mile to the east of Oravicsa lies the large village of Csiklowa. It forms a portion of the Ora municipality, and together they contain a population of about of which about 3700 are Wallachians. During the prosperou istence of the mines the copper works both at Oravicsa and Csik continued in full activity, but the closing of most of them in led to the speedy suspension of all smelting operations. The merworks at Csiklowa, however, still manufacture articles of co ware from the few tons of that metal produced by the Szask trict. The amalgamation works erected at Csiklowa t extrac silver from the impure black copper have long since been di and the process owed its success to the remarkable cheapne labour and fuel.

The industries of Oravicsa and Csiklowa are neither num nor important, and with the exception of the Oravicsa Gold pany there is no mine now working. The Petroleum Works duce a considerable quantity of oil yearly when the price allo a profitable production. There is no spirit of enterprise am the capitalists of the neighbourhood, and nearly everything is i hands of the States Railway Company, who confine themsel non-speculative industries. The urbanity of their officials is u passable, and it affords them pleasure to render every assistan those who desire information on any subject. EMPRESSAR

Bersaska, Sept. 11.

FLAGSTAFF SILVER MINES.

SIR,—Will some shareholder who is familiar with the Li Liability Acts be good enough to call a meeting of the shareho to investigate the mismanagement of the present directors? I u stand Sir Leopold Heath left the board in a manner that requir explanation from the directors, and taking this in connection the statements that have appeared in the Salt Lake newspaper late, it makes one feel quite anxious to get at the truth of the ma The great questions are, has there been or is there any collusi tween any of the directors and the former or present mana whereby some of the directors have, or were to have had, ben from the leases they granted, or undue interest for moneys furni to the company's agent in Utah? It appears to me such t should be fully explained at once by the directors in public m ing; and if they have no good explanation to offer the sooner supplant them by men that we have confidence in the better reports are true, there is no time to lose in this matter. I am formed from more than one source in America that the mines opening up uncommonly well both as to quantity and quali ore, and that there is at present quite 100,000*l*. worth of ore ready to be taken out.

A SHAREHOLDE

[For remainder of Original Correspondence see this day's Supplement.]

PANULCILLO COPPER COMPANY.

The general meeting of shareholders will be held on Nov. 20, the following report from the directors will be presented:—

The accounts, made up to June 30 in Chili, and to Sept. 30 in England, s net profit for the financial year of 10,3 3*l*. 6s. 1vd.

In the past year 5315 tons of regulus were made at Panulcillo, containi tons of copper by analyses. The average price realised was $15·55 per metrico, or 52 cents. per quintal less than the average of the preceding 12 m

As will be seen from the half-yearly mining report, profits have also s from extra outlay on deadwork, as well as from a curtailed production of re consequent on the obstructions and interruptions to the output of ores, arising the necessity of attention to dead-work. It will be observed, however, that a s improvement under this head is anticipated.

The reserves in sight are estimated at 800,000 quintals metrico, or the sa

Mortgage debenture bonds, representing 12,900*l*., drawn on Oct 16, 1876, paid on Dec. 15, and a further sum of 15,000*l*. (the numbers of which were on 15th ult., and advertised in accordance with stipulations contained in the ture of agreement) will be paid on Dec. 15, thus reducing the company's liabi on debentures to 50,000*l*.

The two directors who retire by rotation at the meeting are Mr. John Pe M.P., and Mr. James Andrew, who, being eligible, offer themselves for re-el

NEW TINCROFT UNITED.—At the annual meeting, on Thur (Mr. William Aston in the chair), the directors explained reason of the temporary suspension of the works at the m They reported, however, that there were some tributers on ground, and that with the advance in the price of tin, it was d able that extended operations should be commenced as quickly as possible. conversation which ensued resulted in a large number of debentures being s sionally taken, and the liveliest satisfaction was expressed at the improved spects of the undertaking. Special reference was made to the favourable ports of Capts Josiah Thomas and Wm Rosewarne, and those present expr themselves satisfied that the result of vigorous operations would be a lasting profitable mine. Capt. Wm Vivian fully bore out the numerous reports has been received from various parties concerning the property.

[For remainder of Meetings see to-day's Supplement.]

THE WEEK.

SATURDAY, NOV. 3.—Carn Brea shares were dealt in at 55, and ultimately q 57½ to 60. This represents a further advance for the day of not less than 5 share. There was a rise of 3½ in Dolcoath shares, leaving off 4⅜ to 4 crofts and Wheal Bassets were each a couple of pounds better. Foreign m shares were irregular. Richmond fell 10s., while Chicago improved 18s. Chance, ⅝ to ¾; Kapanga, 1¼ to 1½; Don Pedro, ⅜ to ⅝; General Credit to 6⅝; Imperial Credit, 7⅛ to 7⅜; Milner's Safe, 7⅛ to 8; Royal Aquarium to 2⅞. It is stated that Wheal Jane is more than paying costs, and has a quantity of tin stocked. The petition for winding up Parys Mountain came for hearing to-day. The Master of the Rolls described the proceeding "as a culative petition for the purpose of making costs," and ordered it to be dism with costs.

MONDAY.—Chicago was dealt in to-day at 2*l*., showing a further improve Business was done in Eberhardt at 6¾, and in Flagstaff at 2⅝. Richmon largely dealt in at 8*l*. Grand Trunk securities showed some improvement. Second Preferenced touched 30½, the third 17¾. Royal Sardinian, 3⅛ to Mexican, 1¾ to 1¾. West Cumberland Iron shares were quoted 2*l*. better, th no business was officially marked. The shares are said to be 8 to 10, wit paid, but there is a further liability of 5*l*. Cable shares were thus quoted, C 10 to 10¼; Direct, 12⅝ to 12⅞; Eastern, 7⅛ to 7¾; Globe, 4¼ to 5; West I 2¾ to 3; Brazilian, 6⅜ to 6⅝.

TUESDAY.—Metropolitan District fell 1 per cent. on it being known that money for completing the circle would have to be applied for publicly, wit usual risks and expenses. The prospectus was issued this evening of the "D Circle Completion Railway." Share capital 1,200,000*l*., in 10*l*. shares. The tractor pays 5 per cent. on the shares until August, 1879. The work to be do Mansion House Station to Aldgate Station—is something over a mile in le Hudson Bay shares declined to 10*l*.; there is to be no dividend again. The distribution, two years ago, was 8s. per share; last year the price was over 2 one time. The shares are 17*l*. paid, and were as low as 7¼ in 1871. A rumo further rise of 5*l*. in the tin standards to-day rendered tin shares almost unsa able, holders in many instances expecting still higher prices. The Wheal C ville forfeited shares were allotted to day at 3*l*. amongst the shareholders. W Kitty, Wheal Jane, and Wheal Peevor may be expected to go higher. A business was done in Richmond shares, at prices varying from 7¾ to 8⅛ some quarters a dividend is confidently expected.

WEDNESDAY.—There being no confirmation of the 5*l*. rise in tin, several sh were offered and closed at a fall—notably Carn Brea, Dolcoath, and South Fra North Laxey, 9s. to 11s. Rookhope, 20s. to 22s. South Roman Gravels, ⅞ to Glenroy, ¾ to ⅞. Derwent, 2 to 2⅛. West Wye Valley, 3 to 3¼. In rail Sheffield and District fell rather considerably. Hudson's Bay were dealt in at and Milner's Safe were quoted 7¾ to 8.

THURSDAY.—The downward tendency in Metropolitan District made fur rapid progress. From 57 the price was soon down to 55½. A circular from secretary of the Metropolitan Railway states that the directors of that com have no knowledge of the "Inner Circle" prospectus, nor can they recom the proposals. From 12½ Eries quickly dropped to 9, but afterwards reco somewhat. The New Court at New York has granted the decree for foreclo Wheal Grenville was dealt in at 3¼, but afterwards receded to 3. South Fr also fell; nearly all tin shares closed lower. Richmonds advanced to over 9. is to be a dividend of 7s. 6d. per share, payable on Saturday next. Since Se bullion of the value of over 97,000*l*. has been smelted, and the value of the was never so high. All legal and other expenses have been paid to date. The dividend was paid on Oct., 1876, and was also 7s. 6d. per share.

FRIDAY (Opening).—The fall in Districts does not appear to have reached limit. The stock is flat, at 55*l*. Caledonian, Sheffield, and Dover, A, are all le Tin shares show no recovery. Carn Brea are said to be 50 to 52; and Dolcoat to 40; Wheal Agar, 3¼ to 3⅜; Wheal Grenville, 3 to 3½.—*Two o'clock.*— tricts have dropped to 53⅛ to 53¾. Caledonian are down to 122⅞. Rus 1873 are 78½ to 79. Egyptian Preference, 55 to 55¼. Parys Mountain, 1 11s. Glenroy, ¼ to 1. Rookhope, 21s. to 23s. Derwent, 2 to 2⅛. Last Ch 10s. to 15s. Richmond, 8¾ to 9⅛. Eberhardt, 6⅝ to 7⅛. Tankerville, 5 to Herodsfoot, 6⅛ to 7. Roman Gravels, 7⅛ to 8. East Van, 3¼ to 4. Shef have suddenly dropped from 83¼ to 81 on its being telegraphed, "All arra ments off."—*Four o'clock.*—Sheffields have further receded to 80*l*. The some enquiry for Pateley Bridge, at an improvement; shares are quoted 2 2¾. Chapel House, 3 to 3¼. New Sharlstone, 3⅛ to 3⅜. Newport Aber 3⅜ to 4. Hudson Bay, 9¼ to 10.

FERDINAND R. KIN

Birchin-lane, Nov. 9.

LIVINGSTONE CONSOLS.—A Cost-book company has been form to work the ground immediately adjoining St. Agnes Consols u this name. Operations were, it is said, brought to an untim close through unforeseen circumstances, which had no reference the prospective value of the mine. A large amount of work h

ever, been done, of which the present company will be able to avail themse. The mine has been inspected by agents of considerable reputation, and e have but little doubt as to its future. Capt. Wm. Vivian, of St. Agnes, has appointed manager, and Mr. Still, of London, the secretary.

FOREIGN MINES.

EBERHARDT AND AURORA.—Telegram from Capt. Drake: The mine unproved. Tunnel driven in 2100 ft. Looking favourable. Wanted, November, including taxes, 880*l*, and they also beg to announce a further remittance of silver valued at about 2500*l*.

The directors having asked for fuller information regarding strike in tunnel, received the following additional telegraphic communication from Captain ake:—East tunnel struck quartz Oct. 24, which continued 10 ft.; highest assay lonetic $5 28 c.; have not drifted; will commence twelfth. Present indication ly favourable.

RONTINO AND BOLIVIA.—The directors have advices under date Sept. 12, ompanied by a remittance of gold valued at 1953*l*., the produce of and gold purased at the mines for month ending Aug. 20. The accounts for August show a fit of 478*l*. In addition to the monthly cost of 738*l*., 587*l*. has been expended on d account. During August, owing to circumstances mentioned in Mr. White's ort, only 21 tons of stuff were taken from the Silencio Mine, of which 7 tons were m the lode, the remaining 14 tons being from the hanging wall. The ore taken e lode produced 70 ozs. of gold (10 ozs. to the ton), while that from the ging-wall produced 10 ozs. At the recent meeting of shareholders it was sug- ted that the monthly reports should, if possible, be sent out the day after they ve in England. The directors fear that this is not practicable, the bankers' ers and the mine accounts (which are very voluminous) are all in Spanish, and ve to be translated in order to give a correct account of the profit and loss for the th, and as the arrival of the mail is very irregular, it is sometimes impossible get the letters and accounts translated immediately on their arrival at the com- y's office.

VIDUCTA (Frontino).—The directors have received advices under date 12, accompanied by a remittance of gold, and the accounts for the month of ust. The result of the month's working shows a loss of 215*l*. Of the above ue of 63*l*., the sum of $500 (83*l*.) was expended on powder and stores, a small ortion of which only was consumed during the current month.

EL MONTE CONSOLIDATED.—Telegram from the mine at Eureka, Nevada, ov. 6: Week's run, 870 tons 0 cwt.; from 1100 tons of ore; third furnace only. Smelt ; Fremont ore in part. Week's produce of refinery, $35,000.

Telegram, Nov. 9: Slight accident to hoisting works; no interruption to working. Mine looking well.

Capt. R. Rickard, Oct. 16: The stope in back of the 400 is much improved since my last visit. We have started to cut out for a second stope 100 ft. west of the No. 1, and am glad to say that it is looking very well; the ore we are extracting from this stope is of high grade. The 400 main drift has been suspended; we are now raising in the back of the same. The 500 drift has been started in a southerly direction, to cut under the ore in the 400. The 200 drift has been suspended. The 800 winze is connected with the 900 main drift. We have now let a contract to drift west from the bottom, and are beginning to sink. The fissure is still well defined and regular. The 600, or Constantine, has been suspended for awhile. The furnaces are doing good work, and smelting average quantities of ore; in the course of another week we shall have another furnace.

DON PEDRO.—Capt. Vivian, Oct. 10: Mine: No particular change calling for special remark. The average of general work for the last eight days has somewhat improved. The most productive point at present is in No. 1 stope, No. 8 shoot east, below the adit level, where the improvement took place; the ore ground increased in width, and also in value; it seems to be a new and distinct shoot, completely separated from No. 8 shoot formerly worked below; perhaps in future it may be as well to call it No. 8 new shoot, as it has to be worked on quite apart from the old No. 8 shoot. Symon's shaft is put in thorough repair from surface to the level with strong timber is completed, and rapid progress is being made in widening the permanent incline, which will be finished in a few days. All the other works in mine and at surface continue to progress fairly.

In the captain's letter, dated Oct. 19:—The ore has been derived from No. 8 shoot, adit level, and ditto north ground. The ore generally has been of moderate quality. An improvement has taken place in the appearance of the branches in the Adit level, No. 1 stope, east of adit level, both in size and quality. The branches in No. 3 stope east have produced better general samples than when last reported on. No alteration has taken place in the south side openings of the western stopes since last reported on. All these stopes continue above the former workings. We are now cutting the clay branches in the back of the western stopes and some of the small lode in the bottom. The ore obtained from here has been of moderate quality. The lode in the stopes in the north ground opened on has been somewhat irregular in its yield, but some very good samples have been taken from the ore.—Prospective and Running Work, Alice's Level: There are three setts required in this level and lathed over, and several more require renewing. Several cross-cuts have been made in the adit level where required, setts renewed, &c., and the entrance nearly completed. We have commenced repairing the permanent incline with all dispatch, a strong force being employed thereon. We have commenced driving a new level to cross the No. 6 shoot, and to test the value of the southern extremity of this shoot.—Surface: We are repairing the adit near the new pumping wheel, and got through the run; several setts require changing. Some of the timber has been taken out of the adit near Dawson's wheel for other purposes. A great scarcity of this article is experienced owing to the drought, and consequent weakness of cattle.—Casualty: On the 1st current a severe hurricane swept over the establishment, causing considerable damage to the houses and other plant, which is being repaired as fast as possible. This, of course, somewhat interferes with the other works in hand, our force being comparatively small. Construction of the permanent pumping machinery is progressing as rapidly as the forces will admit.

Capt. Vivian, Oct. 4: The stopes continue to yield the usual quantity of general, but the produce for September, as well as sampling list, show that the latter was rather low; however, I am very pleased to state that the last three days have shown improvement.

From the Captain's letter, Oct. 1: The ore derived has been taken from No. 8 shoot east, and ditto north ground. The ore generally has been of very low quality.—No. 8 Shoot: The branches in the eastern, No. 1 stope, was very poor ground towards the back laths, but the bottom branches show a decided improvement.—No. 3 stope east has been prosecuted vigorously to facilitate the passes of ore from this and the above mentioned stope. The branches on the south side opening from the western stope, still continue good in quality, but very hurl and sparry for excavation. In the western stope we have a small portion of the bottom lode, which shows moderate samples; the clay branches above still continue fair. In the north ground a stope has been opened out, and some samples taken therefrom very good, but the lode is very changeable.—No. 6 Shoot, Raises Stopes: A pillar of old timber, built to support the back, and the stopes filling well with debris, as fast as our disposable forces will allow.

Prospective and Running Work.—Symon's Shaft: The repairing of this shaft is completed. Alice's level is undergoing repairs. The repairing of No. 1 side level is advancing rapidly.—Adit Level: The entrance is in course of completion, and a new set in place of an old decayed one. The opening of this level for the convenience of people in passing, fronting the bob-plat, is completed. The timbering of No. 3 pass is completed to the surface. Vivian's shaft is filled from the "run" to the surface to prevent the rain water going through to cause damage to the workings beneath.—Dawson's Pumping Machinery: A new pin put in Alice's in place of a broken one, and a new cutter put in north side toe pin; jigger shoot repaired, and a cut timber being decayed and broken. The works in connection with the permanent pumping machinery are progressing favourably.

ST. ILL (Gold and Silver). - L. Chalmers, Oct. 15: I send herewith foreman's report for last week. Water still heavy, but we made 8 feet. Foreman's report, Oct. 13:—"The engine-shaft is now down 25 ft. below the 300 station; 8 ft. sunk this week. Said shaft is in hard blasting rock, and is making about the usual amount of water; a little less than last week—is now making 1150 gallons per minute. The water is hoisted and dumped on the 300 by means of a bucket with a sinking ball; it is then pumped to the surfaces. Nothing has been done in any part of the mine this week. Everything in and about the mine is running and working well."

WORCESTER CONSOLIDATED.—G. P. Armstrong, Oct. 13: The furnace has now been running 15 days, and we have turned out about $15,000 worth of bullion. The first week showed a gross estimate of $7300, and the second week $8000. We have already made three shipments of bullion of 30 tons. We are now smelting per day about 30 tons of ore, and I do not think for the present it will run higher than that, although the furnace is capable of doing much better. The first week's report showed an average of 26 tons per day, but this was incorrect, as there was a mistake in weighing the charges of about 6 tons per day, which has now been corrected. The mines continue to look better every day; we have struck a fine body in Vulcan in west drift from bottom of No. 1 shaft, where a cross-cut struck it was about 26 in. wide; it looks very strong and compact, much better than anything above it, as (say) 24 ozs. silver and 38 per cent. lead. We are running a cross-cut in east drift with indications of a vein, and are now getting a good quantity of ore from this mine, and are stoping on both sides of shaft above and below the adit level. I do not think this mine will pay largely until we make more depth, but with this new strike we have much higher hopes of it. Crown Point is working fully as well, but cannot tell what we have there until the tunnel is completed to the cave, which I reckoned would be finished before this time, but the rock is very hard, and it is slow work. We are still following the chimney, which is running down vertically. We think there are several hundred tons of ore above where we are now working, but cannot get at it until the tunnel is finished. I am satisfied this chimney is running down to a large body of ore below, and that it is only a question of time that will develope it.—The following telegram was received on the 6th instant: The furnace has ran seven days, producing $10,000.

ESPERANZA UNITED.—Returns of gold for the month of October:—From the Toppa district: 180 ozs. 4 dwts. 14 grs. of gold obtained from 408 metric tons of ore; yield per ton, 8 dwts. 20 grs. From Pestarena district: 172 ozs. 12 dwts. 20 grs. from 198 metric tons of ore; yield per ton, 17 dwts. 9½ grs. Total from both districts—352 ozs. 16 dwts. 20 grs. from 606 metric tons of ore amalgamated.

PONTGIBAUD.—Wm. H. Rickard, Nov 2: Roure Mine: The sinking of the engine shaft below the 150 goes on favourably. The driving of the 150 cross-cut has gone on slowly; the ground is hard. The 100 cross cut is also in stiff, sparry ground. The 80 metre level north has been driven on a lode producing a little but of quality saving work. The rise in the 80 south opens ground worth ½ ton of lead per cubic metre. The 60 metre north is unproductive; the lode where being driven in the same level south yields ¼ ton of ore per cubic metre. The 40 metre has opened good ground, worth ¾ ton per cubic metre. The 20, north of Edward's stope, on counter lode, is unproductive, as is also the mill adit level, in the same lode. The adit north of Virginie's lode yields ½ ton of ore per cubic metre. The sinking of the Mill shaft below the 20 metre level goes on regularly; the rock is favourable. The 20 cross-cut east has intersected the eastern part of the lode, which looks kindly, and yields from ¾ to ½ ton of ore per cubic metre. Rise: The adit cross-cut east has entered a better channel of ground, and is favourable for driving. The tribute pitches in the back of the Intermediate level remain without change in value.—La Brousse: The 110 metre level, south from Edward's shaft, is opening productive ground, worth ½ ton of ore per cubic metre. The 120 metre level, in the same direction, opens very good ground, yielding ¾ ton of ore per cubic metre for the width of the level, which carries only a part of the lode. The 100 metre level, south of air shaft, meets with stones of ore in the bottom of the level. No 4 winze, below the 100, a little in advance of the level, yields 1 ton of ore per cubic metre. The 80 south is unproductive. The sinking down of the new engine shaft goes on favourably; we hope to complete it to the 80, and cut the plat by the end of the year. The rise against this shaft from the 120 is in hard ground.—Pranal: The 110 cross-cut, east of St. George's shaft, is in stiff ground, consequently progress is slow. The 90 metre level, north of this shaft, is being driven on the western part of the lode, which is unproductive. The same level south yields ¼ ton of ore per cubic metre. The 90, south of Grange's winze, yields ¾ ton of ore, and the same level north ¼ ton per cubic metre. The 70 metre level, north of St. George's shaft, yields 1¼ ton of ore per cubic metre. The 70 south is unproductive. The 50 north yields ¼ ton of ore per cubic metre. The same level south opens tribute ground of low quality.—Surface: We have closed up our outdoor works for the winter, the dressing has gone on uninterruptedly. The samplings have amounted to 270 tons.

NEW BENSBERG.—Charles Craze, Nov. 5: Victoria shaft was sunk in the month 6 ft. 6 in., and is now down 4 fms. 3 ft. 6 in. under the 22; the part of the lode being carried here will produce 3 tons of blende per fathom, with some good lead ore. The 22, west of shaft, was driven in October 2 fms. 3 ft.; this end is now driven in all 10 fms. 5 ft, from shaft in a good orey lode; present end looking quite as well as ever, worth 1 ton of lead ore and 2 tons of blende per fathom, now set to drive by four men at 50 marks per meter. The cross-cut north through the lode behind this end was driven 1 fm. 2 ft. 2 in. the last month, and is extended in all 6 fms. 2 ft. through the lode without finding either north or south wall, thus showing the lode to be very large, which is being mixed with ore throughout, while some parts of it produced 1 ton of lead ore and 1 ton of blende per fathom; the present end will yield ½ ton of lead per fathom and some blende, now set to drive by four men at 45 marks per meter (3 ft. 3¼ in.) The cross-cut north at the 22, east of shaft, was only driven about 3½ ft. last month; here we met with a very good branch of lead, about 3 in. wide, with some blende, but we think the main part of the lode must be further north, and we have set this end to drive by four men at 45 marks per meter. The 14, east of shaft, was only driven 5 ft. in last month (the men being ill greatest part of the time). I am pleased to say, however, in the last 3 ft. driven this end has improved, and is now producing saving work for lead, with a very kindly appearance for further improvement. There is nothing else calling for remark at present.

VIRNEBERG.—R. K. Roskilley, Nov. 6: Setting Report: The 110 lachter level to drive south of engine-shaft, by six men, at 100 m. per lachter; the lode within the past 6 ft. driving is much improved, and yields some beautiful yellow copper ore; this level is extended south 32½ lachters. To rise in back of this level, by six men, at 1 5 m. per lachter; the lode is 6 ft. wide, and worth 15*l*. per lachter. To rise in back of the 100, by six men, at 70 m. per lachter, lode worth 8*l*. per lachter; this rise is above the level 4½ lachters. The 85 to drive north of rise, by six men and two boys, at 45 m. per lachter; the lode is improved, being 6 ft. wide, and worth 30*l*. per lachter; this level is driven north 6¼ lachters. To stope in the back of this level by four men and one boy, at 24 m. per lachter; the lode is worth 24*l*. per lachter. The masons are pushing on the building in of the boiler, and by the end of the week we hope to have it completed. We are daily expecting the steam pipes for the boiler, which, as soon as they are on the mine, we shall lose no time in fixing. We are making good progress in dressing, and our water having recently much increased, we have taken on more hands in this department. We have dressed and ready for sale about 40 tons of copper ore. I have much pleasure in stating that the mine is opening up remarkably well, and since my appointment I have never seen it look so promising as to-day. The pumping-engine and pit-work are in good condition, and working well.

LANESTOSA.—Matienzo Mines: In La Cruz deep adit, driving north, the tufaceous rock has nearly disappeared, giving place to massive calamine, producing 3 tons of zinc ore per fathom. The sinking of Soldado's winze below La Cruz adit is suspended, for the purpose of driving levels from it, leaving a good lode in the bottom worth 3 tons of zinc ore per fathom. The lode in the 50 metre level, north from Soldado's winze, is 3 ft. wide, mostly massive blende, valued at 3 tons of zinc ore per fathom. In the 50 metre level, south from Soldado's winze, the size of the lode is not yet defined, but good branches of blende and calamine mixed fill the front; it is worth 4 tons of zinc ore per fathom. The ore raised for the past month is estimated at 20 tons of calamine and blende.

LINARES.—Oct. 31: In the 120, east of St. Tomas engine-shaft, there is a kindly lode, consisting of carbonate of lime and lead ore, worth 1 ton per fathom. The lode the 100, east of Warne's, is very open, and of a promising appearance, value 1 at 1 ton per fathom. In the 100, west of Warne's, the lode contains a little ore, but nothing to value. The 120, south of Peill's; this cross cut is in hard granite. The 105, west of Peill's, is opening up a good length of productive ground, worth 2 tons per fathom. In the 90, west of Peill's, the lode is failing a little, but valued at 1 ton per fathom. In the 65, west of Peill's, the ground is hard for driving, and the lode small and unproductive. The lode in the 105, east of Peill's, contains a little ore, but not sufficient to value. In the 95, east of San Francisco, the lode is compact and regular, consisting of calcareous spar and lead ore, worth 1 ton per fathom. The lode in the 75, east of San Francisco, is small and poor. The 65, east of San Francisco, is driven beyond the run of ore ground in the upper levels; there is no prospect of improvement, driving is suspended. Good progress has been made in the past month in St. Tomas engine shaft, sinking below the 120. In Warne's shaft, below the 100, the lode is smaller, but still worth 2 tons per fathom. San Francisco shaft, below the 90, is being sunk at a good rate. The lode in No. 221 winze, below the 90, is small and poor. No. 222 winze, below the 75, is worth 1 ton of ore per fathom. The returns were kept up very regularly in the past month, and the stopes are at present without any change of importance. The works at surface are going on regularly, and the machinery is in good working order. We estimate the raisings for November at 200 tons.—Quinientos Mine: In the 100, west of Taylor's shaft, the lode is hard and poor. The 90, west of this shaft, has improved a little in appearance. The 80, in the same direction, is unproductive. The lode in the 100, east of Taylor's, is of no value at present. The 90 east is disordered, having passed through a cross-course. In the 80, east of Addis's shaft, the lode is large, and consists of quartz and spots of ore. The 80, west of San Carlos shaft, is opening up a good length of productive ground; its present value is 4 tons per fathom. The 80, east of this shaft, continues unproductive. The lode in the 65, east of Judd's, consists of quartz. The 45, east of Judd's, having been hard and poor for some time past, driving is now suspended. In Amo's winze, sinking below the 55, the lode is small and poor. We estimate the raisings for November at 100 tons.

FORTUNA.—Oct. 31: Canada Incosa: The lode in the 120, west of O'Shea's engine-shaft, is large and thickly impregnated with lead ore; worth ½ ton per fathom. In the 110, west of Judd's shaft, the lode is compact and regular, and the ground easier for driving through; valued at ¾ ton per fathom. In the 30, east of San Carlos shaft, no ground of value is being opened in this drivage. The lode in the 40, west of Abercrombie's, is much larger than it has been for some time past, and contains good spots of ore. In the 50, west of Abercrombie's, there is a fine strong lode, and is opening good tribute ground; worth 1 ton per fm. The lode in the 50, east of Abercrombie's, contains good spots of ore, but not enough to attach any value to. In the 60, west of San Pedro, there is a large lode, composed of decomposed granite and spots of lead ore. The lode in the 70, west of San Pedro, has slightly fallen off in value during the past few days. In the 70, east of San Pedro, fairly productive ground has been opened during the past fortnight, but is not now so good; worth ½ ton per fathom. The lode in the 120, west of O'Shea's, is regular, but does not contain ore enough to value. In the 110, east of Addis's, nothing has been done during the past fortnight, the men having assisted about other work. The lode in the 90 fm. level, west of Kennedy's, is very large, and occasional fine lumps of lead ore are being extracted; valued at ½ ton per fathom. In the 100 fm. level, west of Lowndes', some good lead ground has been laid open; it is now of less value, but worth ½ ton per fathom. In the 100, east of Lowndes', there is some distance yet to drive before reaching the lead ground seen in the level above. The lode in the 90, east of Caro's, has slightly depressed in value, but is still opening tribute ground, worth ¾ ton per fathom. In the 80, east of Santo Tomas, several small cross courses have been met with, quite disarranging the lode. San Pedro shaft, sinking below the 70, will reach the requisite depth by the end of the month. Abercrombie's shaft, below the 60, is off the lode, and good progress is being made. Labordes winzes, below the 80, is holed to the 90. In Cristina's winze, below the 90, the lode has improved, and is now yielding fine lumps of ore; present value 1 ton per fathom.—Los Salidos: In the 130, west of Buesnos Amigos engine-shaft, there is no change; the lode is still small and poor. The 120, west of Buenos Amigos, is being driven south on the west side of the cross course in search of the lode. In the 130, east of Buenos Amigos, the ground continues hard, and of no value. The lode in the 130, west of Morris's, is spilt into valueless branches, and the ground very hard. In the 130 fathom level, east of Morris's, the lode is small and unproductive. The lode in the 120 fm. level, west of Cox's, is large and open, and yields splendid rocks of lead ore, worth 2 tons per fathom. The lode in the 110, east of San Miguel has slightly fallen off in value, and the ground is harder, and worth at present ½ ton per fathom. In the 25, west of Swaffield's, no lode has yet been met with west of cross-course. The 55, west of Swaffield's, is being driven through a hard bar of disordered ground. In the 65, west of Palgrave's, several small branches have been met with, but the main part of the lode is doubtless further south. The lode in the 65, east of Palgrave's, continues to look well, and the ground is easier for driving, and worth 1 ton per fathom. In the 35, east of Palgrave's, the lode is regular, and produces occasionally very good stones of ore, and valued at ½ ton per fathom. In Morris's engine-shaft sinking below the 130 the shaftmen are working well, and making good progress. Mimbre's winze below the 110 has reached the required depth for the 120. Salievates winze below the 100, is holed to the 110, and is worth ½ ton per fathom. Ramos's winze, below the 55, is also holed to the 65; a part of the lode is still standing north of the winze, and is producing 1 ton per fathom.

ALAMILLOS.—Oct. 31: In the 40, west of San Felipe shaft, there is a large lode producing good stones of lead ore, worth ½ ton per fathom. The 20, west of San Felipe is opening a good length of stoping ground, valued at 1 ton per fm. The lode in the 25, west of Abercrombies, is rather small, but worth ½ ton per fathom. In the 40, west of Abercrombie's, the lode is improved in value, being now worth 1½ tons per fathom. The lode in the 100, east of Taylor's engine-shaft, has a promising appearance, and producing ½ ton per fathom. In the 100, west of Taylor's, there is a very strong lode, but it is poor at present. The lode in the 85 west of San Adriano has again improved, and the ground is more favourable for working; it is now valued at ¾ ton per fathom. The 60, east of San Victor is not producing any lead.

The 60, west of San Victor, is passing through a very fine lode, worth 1½ ton per fathom. The 70 cross-cut, north of San Victor, will be pushed on as fast as possible to intersect the lode. The lode in the 40 cross-cut, south of San Carlos, is poor, and the men are put to cross-cut further south. In the 30 cross-cut, south of San Jose, the granite is somewhat harder for driving through. The lode in the 40, east of Judd's, is looking a little better; producing ¼ ton of ore per fathom. In the 50 fm. level, east of Judd's shaft, the lode contains more lead; worth ½ ton per fathom. The 70 fm. level, east of Judd's, is passing through a valuable lode below where it was quite poor in the levels above; its present value is 1½ ton per fathom. The 80, east of Judd's cross-cut, will soon communicate with Sanchez winze. The lode in the 50, west of Sanchez winze, has fallen off in value, but now worth ½ ton per fathom. San Victor shaft, sinking below the 60, having reached the depth for a 70 fm. level, the sinking is suspended, and the men put to drive north. In Plaido's winze, below the 50, the lode is small and poor. In Leon's winze, below the 40, the ground is favourable for sinking in, producing 1 ton per fathom. We estimate the raisings for November at 175 tons.

The following Report was received too late for insertion in their proper place:

GREAT LAXEY.—W. H. Rowe, Nov. 6: What we hope will prove an important change is just now taking place in driving the 235 end south of engine-shaft, where, from being quite poor, the lode is showing very fair indications. The Welsh shaft is sinking in a lode yielding good average stuff for the washing-floors. The 235 end north is worth, for the part of the lode carried, 34*l*. per fathom. The 220 end is now approaching a point where the two branches of the lode diverge; and to be certain that this level will be carried upon the ore-bearing part, we are arranging to sink a winze at the southern end of the ore ground at the 210 as a guide to the 220 forehead, besides opening the ground for stoping. There is no particular change in the stopes in this part of the mine. A rise in the roof of the 145 is worth 40*l*. per fathom. A stope in the sole of the same level, south of engine-shaft, is worth 28*l*. per fathom.—Dumbell's: Until the shaft is sunk a little further below the 215 it will be best to delay resuming work in the ends of this level. The 200 end north, contrary to expectation, is not yet entirely through the unsettled run of ground referred to in previous reports, the lode in consequence continuing poor. The 185 end north is at present worth 22*l*. per fathom, and offering to improve. The winze sinking below the 170, to communicate with this driving, is in a strong wide lode, but owing to its vughy character the ore is variable, but will probably average in value that already estimated at 30*l*. per fathom. The 140, driving north, is now about under a winze sinking from the 125, where the lode is worth about 15*l*. per fathom, and the end of a similar value. The new cross cut east from the 125 end is being pushed forward with vigour. A change has recently taken place in the nature of the rock in the 110, driving north, and we are in hopes it will lead to something new and important in this direction. The lode in the rise in the middle ground is widening going upward, and the ore getting stronger towards the footwall side, which we have ordered to be thoroughly cut through before proceeding further. The stope from the rise above Day level, to hole Dumbell's shaft to surface, is still yielding good ore, worth for some length 40*l*. per fathom. The shaft is down from the surface 16 fms.

CORNISH PUMPING ENGINES.—The number of pumping-engines reported for September is 15. They have consumed 1743 tons of coal, and lifted 12·3 million tons of water 10 fms. high. The average duty of the whole is, therefore, 47,600,000 lbs. lifted 1 ft. high, by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

Cook's Kitchen—50 in. ..... Millions	48·1
Dolcoath—85 in.	55·5
Mellanear—76 in.	58·2
Mellanear—Gundry's 80 in.	48·4
West Basset—Thomas's 60 in.	53·4
West Wheal Frances—58 in.	51 4
West Wheal Seton—Harvey's 85 in.	59·8
West Wheal Seton—Rule's 70 in.	70·9

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 2	Hornachos	48 2 1	£32 6 10	Nevill, Druce, and Co.
3	Herodsfoot	45	21 7 6	—
	Llawrewinbach	8	11 15 0	Nevill, Druce, and Co.
	South Darren	20	17 19 0	ditto
6	Foxdale	110	18 3 0	ditto
	Llanrwst	50	12 5 6	Walker, Parker, and Co.
7	Great Dyliffe	60	12 8 6	Adam Eyton.
8	Talargoch:—			
	Maesyrewddu	30	12 12 6	ditto
	ditto	30	12 13 6	Walker, Parker, and Co.
	Coetia Llys	40	13 0 6	ditto
	Gorsedd & Merllyn	50	13 16 6	Adam Eyton.
	North Hendre	40	12 13 6	Walker, Parker, and Co
	ditto (round ore)	10	15 1 6	Adam Eyton.
	Prince Patrick	20	12 15 6	Walker, Parker, and C
	Rhyd Alun	10	12 8 6	ditto
9	Monydd Gorddu	10	14 2 0	Nevill, Druce, and Co

BLENDE

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 7	Talargoch	55	£ 3 16 6	Bagilt Smelting Co.
	ditto	55	3 17 0	Kenrick and Son.
	ditto	55	3 15 0	ditto

COPPER ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 3	South Darren	25	£ 3 13 0	Nevill, Druce, and Co.

BLACK TIN.

Date.	Mines.	Tons c. q. lb.	Price per ton.	Amount.	Purchasers.
Nov. 3	Pedn-an-drea	10 7 2 12	£44 17 6	£465 16 5	Carvedras.

TIN BARILLA SOLD IN LIVERPOOL.

Date.	Tons.	Price per ton.	Purchasers.
Nov. 7	4	£38 10 0	R. R. Michell and Co.
	4	38 10 0	Redruth Tin Smelting Co.
	4	32 15 0	Thos. Bolitho and Sons.
	4	32 15 0	Calenick Tin Smelting Co.
	8	30 5 0	Williams, Harvey, and Co.
	6	32 17 6	Daubuz and Co.

PERUVIAN TIN ORE SOLD IN LIVERPOOL.

Date.	Tons.	Price per ton.	Purchasers.
Nov. 7	8	£32 15 0	Thos Bolitho and Sons.
	8	30 5 0	Williams, Harvey, and Co.
	6	32 17 6	Daubuz and Co.
	4	38 10 0	R. R. Michell and Co.
	4	38 10 0	Redruth Tin Smelting Co.

COPPER ORES.

Sampled Oct. 17, and sold at Tabb's Hotel, Redruth, Nov. 1.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Mellanear	87	£2 9 6	West Seton	30	£3 11 6
ditto	70	2 17 0	ditto	11	1 13 0
ditto	69	3 2 0	East Pool	53	2 15 0
ditto	68	2 4 6	ditto	44	2 15 0
ditto	66	3 7 0	ditto	36	4 12 6
ditto	54	3 5 6	ditto	31	2 18 0
ditto	45	8 9 6	ditto	23	1 4 6
ditto	39	3 14 0	South Crofty	67	1 8 0
West Tolgus	71	6 6 6	ditto	53	1 19 0
ditto	70	4 3 0	ditto	25	2 15 0
ditto	64	6 18 6	ditto	2	13 10 0
ditto	59	5 4 6	Carn Brea	23	1 8 0
ditto	45	4 0 0	ditto	22	2 5 0
West Seton	60	3 4 0	West Roskear	27	1 10 0
ditto	48	3 8 0	Killifreth	22	4 0 0
ditto	45	4 2 0	ditto	21	4 5 6
ditto	42	3 13 6			

TOTAL PRODUCE.

Mellanear	498	£1703 13 0	South Crofty	147	£292 18 0
West Tolgus	300	1624 0 6	Carn Brea	45	81 14 0
West Seton	236	819 14 6	West Roskear	27	40 10 0
East Pool	187	551 6 6	Killifreth	43	177 15 6

Average standard ..... £ 87 19 0 | Average produce 7½
Average price per ton £3 11 6
Quantity of ore ..... 1483 | Quantity of fine copper 106 tons 11 cwts.
Amount of money £5291 12 0
LAST SALE.—Average standard ..... £ 94 10 0 | Average produce 6½
Standard of corresponding sale last month, £ 86 5 0—Produce, 8

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	295	£1024 7 6
Grenfell and Sons	238	1170 3 0
Nevill, Druce, and Co.	388½	892 17 6
Williams, Foster, and Co.	248	1102 0 0
Mason and Elkington	209	597 6 0
Charles J. Lambert	154½	504 18 0
Total	1483	£5291 12 0

NO SALE on Thursday last, Nov. 8, or Thursday next, Nov. 15.

COPPER ORES.

Sampled Oct. 24, and sold at Swansea, Nov. 6.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Betts Cove	123	9½	£5 6 6	Caracedo	8	4⅞	£3 1
ditto	123	9½	5 6 0	Union Ore	102	6	3 3
ditto	103	9¾	5 0 5	ditto	101	6¼	3 3 6
ditto	102	9¾	5 2 0	ditto	70	6¼	3 3 0
ditto	100	9½	5 3 0	Aljustrel	85	5	2 10 0
Algerian	85	9	5 1 0	ditto	85	5	2 10 6
ditto	84	9	5 1 0	ditto	85	4⅞	2 9 6
ditto	79	6¾	3 14 0	Cavera Ore	84	6½	£3 12 6
ditto	78	6¾	3 14 0	ditto	84	6½	3 11 6
ditto Prep.	1	36	20 11 6	ditto	83	6½	3 10 6
Carracedo	59	8¼	4 13 6	N. Quebrada	64	6	3 2 6
ditto	58	8½	4 9 0	ditto	63	6	3 2 0
ditto	14	8¾	5 5 6	ditto	46	7½	4 4 0
ditto	21	5¾	3 4 0	ditto	19	9½	5 7 6
ditto	91	5	3 2 0	Emily Ore	12	9	5 7 0
ditto	49	6¾	4 2 0	Copper Reg.	9	26¼	15 14 0
ditto	8	7½	4 16 6	ditto	2	56	35 1 0

TOTAL PRODUCE.

Betts Cove Ore	551	£2859 13 0	Cavera Ore	251	£897 7 6
Algerian Ore	327	1454 18 6	New Quebrada	192	690 12 6
Carracedo Ore	308	1220 19 6	Emily Ore	12	64 4 0
Union Ore	273	865 0 6	Copper Regulus	11	211 8 0
Aljustrel Ore	255	637 10 0			

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Copper Miners' Company	70	£ 220 10 0
P. Grenfell and Sons	227	724 11 3
Nevill, Druce, and Co.	151	707 4 6
Vivian and Sons	739	3,175 10 0
Williams, Foster, and Co.	531½	2,073 18 9
Mason and Elkington	254½	903 6 3
Charles Lambert and Co.	42½	106 5 0
Landore Copper Company	164½	990 7 9
Total	2180	£8,901 13 6

TOTALS AND AVERAGES.

	21 cwts.	Produce.	Price.	Per unit.	Standard.
Whole sale	2180	7¼	£ 4 1 8	11s. 3d.	£83 18 7

AUTHORISED ISSUE OF £20,000.

First Issue of £6000 in 300 Debentures of £20 each, bearing interest at £10 per cent. per annum in half-yearly payments, secured by a First Mortgage on the whole property of the proprietors.

THE DYNIN SLATE COMPANY,

NORTH WALES.

OFFICES.

170, MANSION HOUSE CHAMBERS, LONDON, E.C.

Subscriptions are invited for 300 First Mortgage Debentures of £20 each, bearing interest at £10 per cent., payable half-yearly.

£10 payable on allotment, and £10 in six months, with option of payment in full.

The Debentures will be secured by a first charge upon the whole of the quarries, plant, machinery, income, and effects of the company now being or hereafter to be acquired.

The redemption of the Debentures will take place by Annual Drawings, commencing 1st July, 1880.

The above works are situate in the county of Cardigan, about one mile from the navigable River Dovey and the Glendovey Station on the Cambrian Railway.

The vein of slate rock running through this property is more than half a mile in length, and about 150 feet in width, encased on either side by a vein of granular quartzite, which is invariably a sure indication that the metal existing between them is of the best quality; it is seen the whole distance close to the surface, leaving very little top to be removed, which vastly reduces the outlay.

Owing to the gentle slope of the hill several galleries can be worked at the same time, and a large number of men employed at once without in the least interfering with one another, there being ample space for depositing or "tipping" the rubbish.

Water power is supplied from a stream which flows past the vein, and is sufficient in all seasons for all the machinery (sawing and planing tables) that can ever be required, thereby saving the vast cost of steam power.

An open cutting at great expense has been made at the foot of the hill, which has intersected the slate rock, proving it to be of the best quality, with regular joints, perfect cleavage, of a blue grey colour, free from spots, and of a silky texture.

The quarry, from this cutting alone, is now in a position to supply roofing slates and slabs of any size can be prepared for market by the time the saw-mill is erected; this, it is computed, will take about six months, by which time a large quantity of slabs will be ready for conversion into marketable sizes.

Building material is ready and on the ground.

A good slate quarry is known to be one of the safest and most lucrative of investments.

R. Hunt, Esq., F.R.S., the Keeper of the Mining Records of the United Kingdom, states that the average annual profit from slate quarries is upwards of 30 per cent. per annum, and some of the larger quarries realise as much as 100 per cent on the cost of production.

Many slate quarries require a large outlay to be made in "untopping" and clearing before any produce can be obtained, but here there is comparatively little to remove, which is a very important feature, and which has and will save many thousands of pounds in labour.

It is well known that the demand for slates is greater than the supply; this has of late years very materially increased their value.

The terms upon which this quarry has been purchased are far less than the sum expended by the majority of slate quarries in obtaining the local advantages which this possesses naturally.

An expenditure of £10,000 and upwards is not unfrequent to make a railway from the quarries to a railway station or shipping port, besides subjecting the shareholders to a large annual outlay for repairs, whereas the road from this quarry to both the shipping port and railway station is under one mile, and upon a gradual descent.

The carriage from the quarry to the point of embarkation is in itself a most valuable feature, as the material can be put either into railway trucks, or on board ship, for 1s. 6d. per ton, and a contract can at once be made at that price—an inestimable advantage which can hardly be overrated.

The quarry is held under a lease for 40 years at the low dead or certain rent of 50*l.* per annum, which rent merges in the low royalty of 2s. 6d. and 3s. per ton. There are no charges or impositions whatever beyond the rent reserved, and every facility for working is possessed by the company.

Mr. Pierce's report, as will be seen on perusal, clearly points out and fully confirms the value and great advantages locally possessed by this company, by the position, geological formation, and great economy of transit, as a glance at the map will show.

Taking into consideration the position and great width of the Dynin slate vein, the quality, colour, and cleavage of the metal, the large space and fall for rubbish, the unlimited supply of water-power, and the short distance to a railway and shipping wharf, there can be no doubt that with proper management, this quarry will soon rank amongst the most productive and remunerative in the principality.

COPY of REPORT on DYNIN SLATE QUARRY by W. J. PIERCE, for 25 years in the late Lord Palmerston's Slate Quarry, and for 40 years engaged in Slate Quarrying:—

The Dynin Slate Quarry is situate in the county of Cardigan, about one mile from the Glandovey Railway Station on the Cambrian Railway, and shipping pier on the River Dovey.

This quarry is admirably situated for working, being on the slope of a hill which gradually rises from the level to the top of the mountain, several galleries can be formed in proportionate depth, width, and length, so avoiding very costly machinery for the development of the quarry.

At the bottom of the hill a tunnel has been driven in to intersect the vein, and openings have been continued East and West, where slabs can now be raised of any required size.

Immediately the machinery is erected slabs from this first gallery will supply it, and the ground may be further opened to employ 200 men.

The cost of getting slabs is estimated at 20s. per ton, the cost of preparing them for market at 10s. per ton, and the selling prices from £2 5s. to £4 10s. per ton.

The same costs apply to slates.

The land contained in this quarry is, in my opinion, sufficiently large to open 8 galleries and to employ 1500 men. In my opinion, every gallery will require a capital of £5000, or £40,000 to open and work the 8 galleries.

Every man employed is by custom reputed to return £1 profit per week, so that 200 upon the first gallery now partially opened should give 200*l.* per week and for (say) only 40 weeks in the year £300 per annum, and this upon a capital of £5000 would be about 100 per cent. profit.

The slate veins on this property possess the desirable horizontal joints, thus avoiding waste by the use of powder, and facilitating the making of large slates and slabs.

There is ample room for depositing the waste—indeed, the outlet for the rubbish is convenient for extensive operations.

The slates and slabs are good, and a marketable colour, easy to clean, and in my opinion will prove of well proportionate sizes.

As the quarry is so near to a railway and a shipping pier, the expense of making a railway and buying land for it is saved, frequently costing from £5,000 to £100,000.

The demand is now so great that buyers never expect their orders executed within six months, and in many instances contracts are declined altogether even for cash on delivery.

I have no hesitation in saying that this quarry from all its advantages will pay well to the proprietors.

The cost of conveying the produce to a station or port will not exceed 1s. 6d. per ton.

OPINIONS OF THE PRESS.

ON INVESTMENTS IN SLATE QUARRIES.

"Not for many years has this important branch of trade been so prosperous as at present. . . . The men are fully employed, and were it possible to double the quantity of slates turned out there would be no difficulty in effecting sales. As some indication of the rapid advances in value, it may be mentioned that the description known as 'small ladies,' which in 1872 sold at 35s. per thousand, cannot now be obtained under 60s. per thousand, and all other qualities have advanced proportionately."—*Times*, 10th February, 1876.

As for the market in slates, for many years the supply has generally been short of the steady increasing demand, which sets in not only from all parts of our country but also from America and elsewhere. Under the stimulus of this brisk demand all qualities of slate have risen materially in price, as, for example, 'small ladies,' which in 1872 were sold for 35s. to 38s. per thousand, now command at least 60s. per thousand, the rise in other kinds being in proportion. A successfully worked slate quarry is, under healthful conditions, one of the best investments for British capitalists."—*Monetary Gazette*, March 22d, 1875.

"Now that the investing public are recognising the fact that it is better to embark their capital in home industries instead of foreign loans and foreign mines, our slate quarries stand a better chance of development than they have for some time done, for they only require some of the surplus capital of the county to be employed in this direction to return splendid results. Where estates can be obtained with a practically inexhaustible supply of valuable slate, for which there is a great demand, and which, costing but some 35s. to quarry, sell for £4 per thousand, there can be no doubt whatever that capital employed in developing a good quarry must be attended with considerable success. Several slate and slab companies have recently been registered, and as they have not been publicly brought forward we presume their capital has been privately subscribed by those who are alive to the fact that there is a good opening for the investment of capital in this channel."—*Limited Liability Review*, February, 1876.

"The slate trade of North Wales is at the present time very flourishing. The demand appears to be greatly in excess of the supply, and, notwithstanding the late rise in price, orders are very pressing. Notice has been given by all the quarry proprietors both in Merionethshire and Carnarvonshire of a further advance from November 1st of about 10 per cent., making a total rise within the last three years of about 33½ per cent. on some sizes and 50 per cent. on others. Best slates 20 × 10, which were formerly quoted at 135s., are now 180s., and 16 × 8 and 14 × 10, which were formerly 64s., are now in great demand at the advanced tariff price of 100s. These quotations are from the published price list of the Carnarvon Slate Club.

"Although the rise in slates appears at first sight to be excessive, yet it is not really so; it only bears a fair proportion to the rise in all other building materials. It has long been notorious that contractors in estimating for buildings based their calculations on the rise of all materials alike, including slates, although they had not then risen, the contractors thus getting the advantage which the quarry proprietors, through their supineness were deprived of, although their expenditure in wages, machinery, coal, and materials was gradually increasing, and they were in many cases expending their capital for the benefit of others.

"As a consequence of the present flourishing state of this trade slate quarries are now in great request, and several quarries which, from the deaths of the proprietors and other circumstances, have been in the market for some years have lately been disposed of at good prices; and there appears to be every prospect of the demand continuing, a good slate quarry being at the present time one of the most promising investments that can be found."—*Mining Journal*, October 23rd, 1875.

AUTHORISED ISSUE OF £20,000.

First Issue of £6000 First Mortgage Debentures, bearing interest at £10 per cent. of

THE DYNIN SLATE COMPANY.

OFFICES,—170, MANSION HOUSE CHAMBERS, LONDON, E.C.

FORM OF APPLICATION,

To be sent to the Secretary at the offices of the company, or to the Brokers, Messrs. RICHARDSON and Co., 11, Queen Victoria street, E.C.

To the Proprietors of the Dynin Slate Company.

GENTLEMEN,—I beg to apply for debentures of £20 each of the above issue, at the price of £20 per debenture; and I hereby authorise you to allot me such debentures, which number I hereby agree to accept; and I agree to pay the sum of £10 in respect to each debenture upon allotment, and the balance of £10 per debenture according to the terms of the prospectus.

Signature in full .....

Address in full .....

Date ..... Profession or occupation .....

I desire to pay up in full on allotment, and receive the interest of 10 per cent. on the whole amount.

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—S. Toy, Nov. 7: The new shaft is now down 15 fms. 1 ft. below the deep adit level. The men have now finished their contract for 15 fms., and we have to sink 4 ft. more as a reservoir for the water; when this is finished, we shall at once cover over the shaft 15 fms. below the deep adit, and commence driving a cross-cut towards the lode.

BEDFORD UNITED.—R. Goldsworthy, Wm. Phillips, Nov. 7: The lode has been taken down in the 138, east and west, and so far as seen in the eastern end it is worth 15*l.* per fathom. The lode in the western end fully maintains its former size and value, 10*l.* per fathom. The lode in the 127 east is still unproductive. In this level west we are driving a cross-cut north, but as yet have not discovered any more lode. The lode in the 115 east is full 3½ ft. wide, composed of congenial capel, quartz, mundic, with stones of copper, letting out water freely, and from its promising appearance we expect an early improvement in this end. The stopes throughout the mine are producing the usual quantity of ore.

BICTON CONSOLS.—George Spargo, Nov. 6: South Side: Since my last we have sunk the trial shaft to the depth of 6 yards; the lode is large and well defined, and of a promising character, with every appearance of a speedy improvement as depth is attained, but owing to its porous nature the influx of water somewhat retards the progress in sinking. We have cut the lode midway between the north side and south side in the wood close to the road, thus proving its existence and continuance for upwards of a mile in extent; the indications so far seen are very favourable, but as we have only just cut into it I cannot report its full size and character until further opened on. We have also cut the lode near the stream of water in the valley, at which point an adit or day level can be taken up and extended into the hill, which will prove the lode much deeper, as mentioned before. North Side: The men are busy following and opening on this lode, so as to intersect the junction of the great east and west lodes. Every place yet seen presents a very flattering appearance, and yields lead ore (more or less). I expect in a few days to open up the east and west lode some distance east of the north and south, and when laid open will report to you on its merits. Everything will be pushed on with the utmost speed; the men are all working in good spirits, and the lodes presenting indications—all that can be expected for the depth wrought on.

BODDIRIS.—H. Hotchkiss, Nov. 7: There is no material change in any of the workings since the last report. The different parts are being urged on with all speed. The 70 west, on middle lode, is of a very kindly appearance. I am daily expecting to meet with a good course of ore here. The 60 east is also promising, with a fair quantity of blende and a little lead ore. The lode and ground is rather hard. The cross-cut at the 60 going south is becoming more favourable for driving, with ground very congenial for the production of lead ore when in the lode.—The 45 Level: No change in the cross-cut south. The stope in the bottom of this level is producing a quantity of ore for dressing floors.

CARON.—John Kitto, Nov. 2: The rise for the new engine shaft is up 5 fms. above the adit level, and, very good progress is being made. I hope by sinking and rising to get a communication through to sur ace in about a month from this time. We have about 11 fms. further to sink and rise. We have cleared all the stuff from the 10, and have resumed the driving of the ends both east and west of the old engine-shaft. The former is yielding very good lead stuff, and looks very kindly, but the latter has to be driven a few fathoms further to reach the run of productive ground. We have commenced to clear out foundations for pumping-wheel and drawing-machine house, and shall push on with the same as rapidly as possible, until all the erections are completed, and the machinery, including that for dressing, in full work.

CLARA CONSOLS.—Nicholas Bray, Nov. 7: Fair progress is being made in sinking the trial shaft below the 15, and I hope it will soon be down the required depth for another level, after which we shall lose no time in driving eastward under the run of ore ground opened up by the shallow level. Next week we intend drawing ore stuff from Sanford's shaft in Rowland's land.

CLEMENTINA.—William Bennetts, Nov. 7: The 34 end has been driven south of engine-shaft 4 fms.; the lode in the present end is 1½ ft. wide, and worth 12 cwts. of lead per fathom. The lode at this distance from shaft has very much improved in value to what it was at the 25; we have not seen anything like the east and west lode as yet, but we believe that we are very near to it, as the water is coming very strongly from the forebreast of the end. We have this week put the men from the 34 end to cut a plat, which I hope will be completed this week, when we shall at once resume the driving of the 34 end, also case and divide down the shaft from the 25 to the 34, so as to draw the stuff from the 34 with the steam-engine instead of manual labour, which will be a great saving. We have commenced sinking the winze in the bottom of the 25 this morning.

— Nov. 8: We have taken down a piece of the lode in the winze to-day, and I am glad to say it is worth over 1 ton of lead per fathom.

COMBMARTIN.—E. Hosking, Nov. 5: We set the following bargains on Saturday last:—To drive the 28 west of the cross-cut from Harris's shaft, by two men, at 4*l.* per fathom; the lode is 4 ft. wide, yielding a little lead. To drive the 28 east, by four men, at 8*l.* 10s. per fathom; the lode has a kindly appearance, and seeing that so much ground has been taken away in the back and bottom of the 15 we expect an improvement in this end. To clear and secure the 15, east of Harris's sh ft, by four men, at 3 s. per fathom; this level as far as cleared shows that the lode taken away was large, and no doubt it was rich, for in clearing the level we found a rock that yielded quite 1 cwt. of rich silver lead. The clearing of this level will be carried on with all speed, as we expect to find a good lode by extending the level under the ore seen in the lode near the surface. We have put a pare of men to sink a trial shaft on the lode west of all the workings, to see the lode west of the cross-course, nothing having been done in that direction by former workers.

CWM DWYFOR.—Joseph Jewell, Nov. 8: In the 20 driving west the men are still desuing the lode; we shall commence to blast it down on Monday next. We have a piece about 2 fms. in length to take down. There is a sparry branch about 18 in. wide, lying on the back of the load; it is gone right across the end, and is composed of beautiful quartz; what the effect of it will be I cannot tell. In the stope west of Stewart's shaft, over the back of the 10, the men are also desuing the lode; but we shall take it down on Monday next. In the stope, east of Stewart's shaft, the lode is not regular, but at times yields some very good lead work. This is a trial piece of ground, and likely to turn out some good lead.

DERESBY MOUNTAIN.—William Bennetts, Nov. 7: The lode still holds good and looking well at No. 1 adit level. The same remark will apply to Nos. 3 and 4 levels. We will send you a full report of both mines next week for the directors' meeting.

— William Bennetts, Nov. 8: The lode in No. 4 level is over 30 ft. wide. We have put the end men to work on this lode, and I am glad to say they are breaking good lead work. It is the finest looking lode I have seen since I have been in this part, and no one can see a finer looking lode in England or Wales.

DEVON GREAT CONSOLS.—Isaac Richards, Nov. 8: There is no alteration to report at the different points of operation. The six monthly report is being prepared, and will be forwarded to morrow.

DUBBY SYKE.—W. Tallentire, Nov. 2: Dubby Syke Level: We have now driven 3 fms. 3 ft. to the north on the vein last cut in the plate, the limestone being thrown up about 2 fms. Were we another fathom driven, I would advise a rise to be put up to try this vein in the limestone, and if found productive to continue the rise to surface for ventiliation. The east and west vein is thrown to the north about 6 ft. off its proper bearing.

EAST CHIVERTON.—R. Southey, Nov. 7: Since my last report we commenced a rise in the back of the 74 now up about 3 fms.; the lode in the back is a little disordered, but a good lode in the western end also going down in the bottom of the level. We have resumed the drivage of the 74, west of engine shaft, where the lode is 2½ ft. wide, and worth for lead 20*l.* per fathom; driving by six men, at 4*l.* per fathom. The lead bearing part of the lode is in the foot and hanging wall, with a horse of killas between the two, and should these branches come together we may reasonably expect a further improvement. The end is letting out a large quantity of water, and the lode containing a great deal of quartz, which is a good indication of there being productive ground before us. We are still continuing the drivage of the 64 fm. level cross-cut, south of the engine-shaft, but no change as yet taken place; driving by six men, at 12*l.* per fathom. The dressing hands are busily engaged preparing a parcel of silver-lead for the market.

EAST CRAVEN MOOR.—D. Williams, Nov. 7: In the cross cut, south from the 56, the indications are very favourable for cutting the vein rich, having a powerful stream of water issuing from the end, and the limestone is mixed with spar and spots of lead ore. The top level is cleared and repaired within 7 fms. of the new shaft from surface. We have in the back of the level a solid branch of lead ore 6 in. wide. We are preparing for driving the 42 west under the new shaft.

EAST DARREN.—Nov. 7: In the 80, east of western cross-cut on south lode, the lode is 5 ft. wide, improving for lead, now yielding 1 ton per fathom. In the same level, west of cross-cut, we have again commenced driving in a lode 4 ft. wide, containing stones of blende and a little lead ore, saving work for dressing, and look forward to an improvement at this point, the ground becoming harder and more mineralised. In the cross-cut north, at the 80, the ground is harder for exploring, and produces occasional stones of lead ore. The tribute pitches and stopes throughout the mine are a little improved on the whole, and are yielding fair quantities of ore. Our machinery is in good working order, and drawing and dressing progressing favourably towards another sampling.

EAST VAN.—W. Williams, Nov. 7: Tempest shaft is sunk 3 fms. 1 ft. below the 40; we are having occasionally a good spot of lead here. The 25 is pushed westward with all dispatch. The stope is without change.

GAWTON COPPER.—G. Rowe, G. Rowe, jun., Nov. 3: We are busily engaged in stoping down the south parts of the lode by the side of the drivages at the 105 fm. level, which is worth 30*l.* per fathom. The ground in the 82 cross-cut south is intermixed with spar, spotted with mundic and ore. All other points are without change.

GLASSLYN CONSOLS.—Thomas Jenkins, Nov. 6: The cross-cut continues without change, but there is a great deal of water issuing out of the end.

GLENROY (Lead).—R. Rowe, Nov. 6: I have now come from underground In the shaft sinking below the 65 during the week an increase of quartz mixed with lead and blende has come into the lode, which continues to be fully 6 ft. wide. In the 25 the lode is still going off in the side of the level containing blende; it is clearly separate from anything seen below, and I now propose to prove it in the north part of lode 15¼ fms.; that wall is now well defined, and the matrices lying thereon consist of veinstone, crystallised limespar, a little blende, sulphur, and specks of lead ore; indications are in favour of our being near a valuable lode of lead. I have set the ground above the 28 east of shaft, to four men, to raise ore at 3*l.* per ton; the present yield of ore is in favour of their earning good wages.

GOGINAN.—Nov. 7: The tip and cistern plate at the 130 are being proceeded with as fast as poss ble, and we hope to have them complete and resume the sinking of the western shaft in a fortnight hence. In the past month the 130 has been extended east of western shaft 2 fms.; the lode is large, and produces good ore, has been driven 1 fm. 4 ft.; the lode contains a mixture of ore, but the south wall is not yet reached. The 130, west of winze below the 120, 70 fms. west of Bryn Pica shaft, is driven 2½ fms.; the lode in the present end is large, and spotted throughout with lead ore. The 100, east of Bryn Pica shaft, has been driven 2 fms. 0 ft. 6 in.; the lode is looking more promising, containing strong spots of ore, and we hope something good may be met with here shortly. In the stope over the 120, 35 fms. west of Bryn Pica shaft, the lode has improved a little, now worth 15 cwts. of ore per fathom. The lode in the other four stopes over the same level varies in produce from 8 to 15 cwts. of ore per fathom. The three tribute pitches will produce on an average 12 cwts. of ore per fathom. Surface operations are being pushed on as fast as possible, but the weather hinders us at times. We hope to sample 40 tons of ore on Tuesday next, the 13th inst.

GREAT DYLIFFE.—Evan Evans, Nov. 6: At the 132 east we have eight men driving and stoping; driving at 5*l.* 10s. per fathom and stoping at 3*l.* 5s. per fathom, worth about 10 cwts. per fathom. At the 132 west we have six men driving and stoping; driving at 5*l.* 10s. per fathom and stoping at 3*l.* 5s. per fathom; worth about 16 cwts. per fathom. The stope over the 132 east near the shaft is set to four men, at 3*l.* 15s. per fathom; worth about 1 ton per fathom. At the 120 east is set to four men at 45s. per fathom, and 30s. per ton; worth about 1 ton per fathom. A stope above the 120 east is set to four men at 40s. per fathom and 30s. per ton; worth about 16 cwts. per fathom. The stope above the 105 east at 3*l.* 17s. 6d. per fathom; worth about 1 ton per fathom. The 95 is set to six men to drive east at 5*l.* 10s. per fathom; in a few days this will be holed to the last-mentioned stope, then we shall strip the lode and know its value. A stope under the 75 east is set to four men at 50s. per fathom, and 30s. per ton; worth about 1 ton per fathom. At the 60 east we have two new driving west in cross-cut at 5*l.* 10s. per fathom; worth about 10 cwts. per fathom. In the bottom of winze under the 40 east a stope is set to eight men at 45s. per fathom, and 30s. per ton, and 20s. per fathom for rising water and rising and tramming stuff, the lode being worth about 1 ton per fathom. We have two men stoping under the 25 at 3*l.* 10s. per fathom; worth about 15 cwts. per fathom. A stope above the 25 is set to four men at 40s. per fathom, and 30s. per ton; worth about 16 cwts. of ore per fathom. The winze on the new lode is set to six men at 6*l.* per fathom. We have very good ore taken from this winze to-day, and it is still improving. Llechwedd-du Lode: A stope above the 105 east is set to four men at 3*l.* 5s. per fathom; worth about 15 cwts. of ore per fathom. Another stope over the same level is set to four men at 3*l.* per fathom; worth about 1 ton per fathom. A stope over the 95 east is set to four men at 3*l.* 7s. 6d. per fathom; worth about 16 cwts. of ore per fathom. No. 2 stope over the same level is set to four men at 45s. per fathom, and 30s. per ton; worth about 10 cwts. per fathom. No. 3 stope over the same level is set to four men at 40s. per fathom, and 30s. per ton; worth about 16 cwts. per fathom. A stope above the 85 west is set to four men at 45s per fathom and 30s. per ton; worth about 18 cwts. per fathom. A stope under the 75 east is set at 45s. per fathom, and 30s. per ton; worth about 30 cwts. per fathom. A stope under the 55 is set to two men at 39s. per fathom, and 30s. per ton; worth about 16 cwts. per fathom. At the 95, west of Bradford shaft, four men are set to drive a cross-cut to the lode at 5*l.* 10s. per fathom. We have six men timbering and clearing the bottom of the 95, east of Bradford shaft, where we have good ore, that will be set to these men in about a week. We shall have more to say about this level next week. Under the 75, west of Bradford shaft, we have two men stoping at 40s. per fathom, and 30s. per ton; worth about 15 cwts. per fathom. Over the 95, west of Bradford shaft, we have two men stoping at 3*l.* 5s. per fathom, worth about 10 cwts. of ore per fathom. At the 35 (Bradford shaft) two men are driving a cross-cut to the lode, at 5*l.* 5s. per fathom. At the upper adit level we have two men driving east at 4*l.* 15s. per fm. to the Esgairgaled and Llechwedd-du lode at a point where they form a junction. There are five pitches set on tribute, 23 men as follows:—Six men at 2*l.* 15s. per ton, two men at 4*l.* 10s., four men at 5*l.* 10s, six men at 6*l.*, and two men at 7*l.* 10s. per ton.

— Evan Evans, Nov. 7: We have sold to-day 60 tons of lead ore to Mr. Atkyns, Eyton, at 12*l.* 8s. 6d. per ton, realising 745*l.* 10s.

GREEN HURTH.—Wm. Vipond, Nov. 2: The new end west from No. 1 cross vein, in the east and west vein, is not so good this week; the vein contains more brytes and less ore; it is worth at present about 10 cwts. of ore per fathom. Driving on the branch west of No. 1 is yielding 10 cwts. of ore per fathom; this is set to drive to two men, at 39s. per fathom. The stope on the branch in the east side of No. 1 is gradually working back into more orey ground, it is now yielding 15 cwts. of ore per fathom. The stope in No. 2 cross vein is poor, not yielding more than 6 cwts. of ore per fathom at present. The stope below adit north is poor, too, in the bottom, not paying cost, but we shall get the bottom squared out in another week, when we shall go forward with better ore. The driving north from rise in Fire Away is yielding 8 cwts. of ore per fathom; it seems to yield less as it gets nearer to the main vein going north, to which it is gradually heading. I have had two men from the No. 3 this week to work some ore from the stope on No. 1 south end; they have got some very fair work from it this week. We are in want of some extra house to keep the washers at work while we have unfavourable weather. The driving for the new waterway from No. 2 to No. 1, of course, is yielding nothing yet. I have set this to two men, at 92s. per fathom. There is nothing new to report from the cross cut south from adit level. We have sent off no ore this week, but have about 12 bings dressed.

GROGWINION.—John Kitto, Nov. 2: In handing you my usual monthly report I have nothing particularly new to which I need direct special attention. I am glad to say the intermediate and 56 fm. levels on No. 4 lode continue to open out well, and we expect to intersect the same lode in the 68 cross-cut about the end of next week. We have good ore in the 80, and deep adit levels on the No. 3 lode, and a rise in back of the latter is being put up through a good bunch of ore. The various stopes throughout the mine are looking very well, and are yielding a fair average quantity of ore. There is nothing new to report from No. 1 lode.

— Evan Evans, Nov. 7: We have sold to-day 60 tons of lead ore to Mr. Atkyns, Eyton, at 12*l.* 8s. 6d. per ton, realising 745*l.* 10s.

GREEN HURTH.—Wm. Vipond, Nov. 2: The new end west from No. 1 cross vein, in the east and west vein, is not so good this week; the vein contains more brytes and less ore; it is worth at present about 10 cwts. of ore per fathom. Driving on the branch west of No. 1 is yielding 10 cwts. of ore per fathom; this is set to drive to two men, at 39s. per fathom. The stope on the branch in the east side of No. 1 is gradually working back into more orey ground, it is now yielding 15 cwts. of ore per fathom. The stope in No. 2 cross vein is poor, not yielding more than 6 cwts. of ore per fathom at present. The stope below adit north is poor, too, in the bottom, not paying cost, but we shall get the bottom squared out in another week, when we shall go forward with better ore. The driving north from rise in Fire Away is yielding 8 cwts. of ore per fathom; it seems to yield less as it gets nearer to the main vein going north, to which it is gradually heading. I have had two men from the No. 3 this week to work some ore from the stope on No. 1 south end; they have got some very fair work from it this week. We are in want of some extra house to keep the washers at work while we have unfavourable weather. The driving for the new waterway from No. 2 to No. 1, of course, is yielding nothing yet. I have set this to two men, at 92s. per fathom. There is nothing new to report from the cross cut south from adit level. We have sent off no ore this week, but have about 12 bings dressed.

GROGWINION.—John Kitto, Nov. 2: In handing you my usual monthly report I have nothing particularly new to which I need direct special attention. I am glad to say the intermediate and 56 fm. levels on No. 4 lode continue to open out well, and we expect to intersect the same lode in the 68 cross-cut about the end of next week. We have good ore in the 80, and deep adit levels on the No. 3 lode, and a rise in back of the latter is being put up through a good bunch of ore. The various stopes throughout the mine are looking very well, and are yielding a fair average quantity of ore. There is nothing new to report from No. 1 lode.

marked degree.—Old Engine-Shaft: The stope west of shaft continues very unproductive.—Walker's Lode: The last day or two the lode has very much improved. The bottom of the engine-shaft, but I am sorry that we are unable to continue the sinking for the present for want of pumps, and I have, therefore, put the men to stope in the roof of the 72, where they have some nice ore. We have not reached the run of ore ground in the 81, but are expecting to do so almost daily, when we shall drain the water and be able to sink in good ore below the 72. The stopes in back of the 72 are yielding their usual quantity of ore, and all the machinery is in good working condition.

LOVELL (THE).—J. Prisk, E. Kempthorne, Nov. 8: The lode in the Howman cut, sinking below the 36, has improved since my last, and is now worth 220*l.* per fathom for its length (12 ft.), and we consider the reserves standing in the end of the shaft are richer than the tinstone now being sent to the surface. No change in any other part of the mine. We shall sell a good parcel of tin tomorrow.

MARKE VALLEY.—W. George, J Stenlake, Nov. 8: In the 148 the lode has not been taken down since last reported on. The rise in the back of the 60 continues to yield 3 tons of ore per fathom for length carried. The lode in the 40 west is 2 ft. wide, and will yield 2½ tons of ore per fathom. The two rises in the back of this level will yield—No. 1, 3 tons; and No. 2, 5 tons of ore per fathom for the length carried, 2 fms. In the 30 west the lode has a very promising appearance, and will yield full 1½ ton of good quality ore per fathom. The 20 west will yield from 1½ to 2 tons of ore per fathom. Our pitches and stopes continue to yield about the usual quantity of ore. We have computed our present sampling to sale on the 22nd inst at 420 tons.

MEDLYN MOOR.—J. Prisk, Nov. 6: We have not yet cut the lode in the 90 fm. level, which I am rather inclined to think that the north lode has turned the south lode to underlie south; consequently, we shall have to cut in south a little; I have given orders for it to be done.

MELLANEAR.—John Gilbert, Nov. 7: The The lode in the 50, west of the skip-shaft, is 5 ft. wide, and worth 4½ tons of copper ore per fathom. The rise in the back of this level is worth 3 tons of ore per fathom. The lode in the 60, west from No. 3 rise, is producing good stones of ore, but not sufficient to value. The stope in the back of the 67, east and west of No. 1 rise, is worth 5 tons of ore per fathom. The stope in the bottom of this level, west of the cross-course, is still worth 8 tons of ore per fathom. The lode in the 90, west of the skip-shaft, is 5 ft. wide, and worth 3 tons of ore per fathom. We have commenced to sink Sandy's shaft below the 90; the ground is favourable for sinking, and the shaft is being carried of sufficient length for trip-plat and cistern-plat. The lode in the bottom of shaft, is 4½ ft, wide, and worth 2½ tons of ore per fathom. There are now 7 fms. more to communicate this end with the 90 west of the skip-shaft. The lode in the 80, west of shaft, is improved a little, and is now producing some good work for copper ore. The stope in the back of this level, east of the shaft, is worth 8 tons of ore per fathom. The lode in the 70, west of the shaft, is worth a ton of ore per fathom. The winze in the bottom of this level is also worth a ton per fathom. The lode in the 60, east of the shaft, is 2 ft. wide, and worth a ton of ore per fathom. The rise in the back of this level is worth 5 tons of ore per fathom, and the No. 1 rise in the back of this level, east of cross-cut, is still worth 6 tons of ore per fathom. The lode in the 60, west of shaft, is 2½ ft. wide, and has improved to 2 tons of ore per fathom. We have commenced a winze in the bottom of this level, about 6 fms. behind the end, to ventiliate the 70. The lode in the winze is 4 ft. wide, and worth 3 tons of ore per fathom. Our other underground and surface operations are going on very satisfactorily, and we are getting on very well on the dressing floors towards our next sampling.

MOSYDD GORDDU.—James G. Green, Nov. 7: No particular change to report this week. Dressing and winding are proceeding regularly, and all the machinery is working well. We shall require a new pair of roller shells for crushers in the course of a month; the last pair have not worn well, being too soft. Tenders are due in London on the 9th inst. for 10 tons of lead ore.

NEW BRONFLOYD.—Thomas Kemp, Nov. 8: Setting Report: No. 3 Shaft, North Lode: We put the new 35-ft. diameter wheel to work on Saturday last. I am pleased to say it started without any hitch whatever, and is working exceedingly well. In order to connect the two line of rods and do other necessary work the pumping machinery was idle three days, during which time the water rose 7 fathoms above the 121. It is satisfactory to state that the mine is again in fork at the bottom, and that we have resumed the driving of the 121 end west from the shaft, which is re-set to six men, at 180s. per fathom. I have no change to report to you; the general character of the lode is about the same as for some time past, showing a little lead, but not to value. The men in the stope to the east of the winze over the 110 are still employed in filling up the workings. Ten men to stope on the lode to the west of ditto, and towards the winze, at 65s. per fathom; the lode is worth 20 cwts. of ore per cubic fathom. Six men to stope to the west of the winze, at 75s per fathom; the lode is worth 12 cwts. of ore per fathom. A tribute pitch to two men over the 96, west of Joshua's winze, for two months, at 150s. per fathom—Curtis's Cross-Cut: In cross-cutting the lode south in the 73, east of shaft, the last 3 ft. cut into has shown a much better appearance, being composed of killas, carbonate of lime, and spar, with small strings of ore crossing the drivage. In the 40 and 27 over this point the productive part of this lode proved to be on the south side, and owing to its great width we have yet some fathoms to cross-cut before reaching the south wall, and judging from the appearance of the lode at the extreme end of the said cross-cut we may expect favourable results; this pitch again is re-set to four men, at 150s. per fathom.—No. 2 Shaft, Middle Lode: Two men to drive the 52 end, west of Lloyd's cross-cut, at 180s. per fathom, which includes the removal of stuff; the part of the lode opened on by this drive is without any change to notice. Four men to drive the 52 end, east of shaft, at 170s. per fathom, which includes the removal of stuff; the part of the lode carried by this driving is producing good stones of ore, and is presenting indications for an improvement. The men in the stope over the 40, east of shaft, are employed in putting in sull, &c. Our crusher has been idle for the last two days undergoing repairs; however, it will be ready to start again to morrow morning, when we shall endeavour to pull up the lost time. Pitwork, &c., in good working order.

NORTH LAXEY.—John Sowden, Nov. 6: The lode in the 146 end north is getting stronger, now near 3 ft. wide, with more water coming from it than we have seen before, and producing a small quantity of lead. The lode in the south end is near 3 ft. wide, and improving for lead, but not to value. The stope in the back of the 121 is worth 2 tons of lead per fathom. The 70 roof stope is worth 3 tons per fathom. The 60 sole stope is worth 15 cwts. per fathom. The 60 roof stope is worth 15 cwts. per fathom. The 50 roof stope is worth 10 cwts. per fm. The lode in the 40 end is improving again, now worth 10 cwts. of lead per fathom.

OOLA HILLS.—J. Phillips, Nov. 7: The winze sinking in bottom of the 23 and west of No. 2 cross-cut is not so rich to-day as last reported, but is still a splendid lode, and will produce 3 tons of lead ore per fathom, and seems to be improving. The end west from No. 2 cross-cut is worth for lead ore 2 tons per lineal fathom, as in other places without change. Nothing can be more satisfactory than the way in which the mine is opening out.

PARYS MOUNTAIN.—T. Mitchell, Nov. 8: We have no change of any importance here this week. The 90 south is going forward favourably, and is looking much the same as when last reported. We are opening east on the branch last cut with in this end, which is yielding good stones of copper ore and sulphur, and we hope it will lead to something better in this direction; we have one man working in this place at present.

PATELEY BRIDGE.—C. Williams, Nov. 8: I beg to forward you the following report for the past month:—The 30 east, on Rake vein, has been extended during the month 11 fms., making the total length from engine-shaft 29 fms.; re set for the month to eight men, at 5*l.* per fathom. The vein in the end is 8 ft. wide, consisting of gossan, zinc, fluor-spar, carbonate of lead, and a good course of ore, worth of the latter 3 tons per fathom. I beg here to remark that we have driven under the old company's workings, and have risen through to their old bottoms, and found the vein as represented, 6 ft. wide, containing a rib of ore 18 in. thick, of nearly solid metal, and 8 fms. in advance of our present forebreast the ground working rapidly, leaving about 35 fms. of backs over our 30 fm. level. The same men, in the 30 west, is 7 ft. wide, composed of fluor-spar, quartz, barytes, and strings of solid ore, producing of the latter 11 cwts. per fathom. We have done much in this bargain last month, being short of hands; re set for the month to four men, at 6*l.* per fathom. You will please bear in mind that we have a fine course of ore before this level, under Gill sump, worth 2 tons per fm. The vein in the rise and stope over this level is 5 ft. wide, worth 1¼ ton of lead ore per fathom; set for the month to eight men, at 4*l.* per fathom—ground favourable. The Lamb vein, in the south cross-cut, in the 20 west, is 7 ft. wide, and the part carried (4 ft.) is producing 15 cwts. of lead ore per fathom; re-set for the month to four men, at 60s. per bing for clean ore. The same vein, going west, is 5 ft. wide, worth 5 cwts. of lead ore per fathom; set for the month to four men, at 50s. per bing and 40s. per fathom. Fielding's rise, in the 20 north west, is 4 feet wide, worth 1 ton of lead ore per fathom; set for the month to four men, at 55s. per bing, or 6*l.* 17s. 6d. per ton for clean ore. I expect a great improvement here soon, as we are going under some rich ground. The Sun vein, going east under Whitfield level, is 6 ft. wide, worth 12 cwts. of lead per fathom; I have not set this bargain as yet this month. The produce for October amounts to 28 tons of clean ore, worth over 400*l.*, at a monthly cost of 340*l.* I offered Mr. Hutchinson 21 tons of lead, for sale on Monday last, and he bid 18*l.* 17s. 6d. net cash for it. Dressing and dressing proceeding satisfactorily.

PEDN-AN DREA CONSOLIDATED.—William Tregay, John Pope, William Polkinghorne, Nov. 8: Sump: In the 140 west cross-cut we have got through the lode, which is about 4 ft. wide at this point, and worth 12*l.* per fathom; we intend driving east and west on its course at once. In the 130 west end the lode is 6 ft. wide, and no footwall; the part in the end is worth 15*l.* per fathom. In the 120 west stope is 7 ft. wide, worth 12*l.* per fathom.—Cardozo's: In the 100 west end the lode is 6 ft. wide, and no footwall; the part carried is worth about 10*l.* per fathom. In the 90 west end the lode is worth 12*l.* per fathom. In the 90 west rise the lode is worth 40*l.* per fathom. In the 90 west rise the lode is worth 40*l.* per fathom. In the 80 west end the lode is worth 8*l.* per fathom. In the 60 west end the lode is worth 9*l.* per fathom. In the 55 west end the lode is worth 9*l.* per fathom. In the 47 west end the lode is worth 10*l.* per fathom. We sold on Monday last at Carvedras 10 tons 7 cwts. 2 qrs. 12 lbs. black tin, at 44*l.* 17s. 6d. per ton, for 465*l.* 16s. 5d., the produce of one week. No other changes to report.

PENSTRUTHAL.—W. Polkinghorne, Nov. 8: At Highburrow shaft, sinking under the 72, we have met with a patch of elvan, which has for the present disordered the lode. We have met with similar patches of elvan in the upper levels, and as we have driven through them the lode has invariably improved, and we expect the same effect will be produced at the shaft. In the 72, driving east of the shaft, the lode has a most promising appearance, and we hope in a little further driving we shall meet with the copper ore which has gone down in the 58. In our cross-cut driving south of the 58 we have not yet met with the lode seen in the 46 above, but by our dialling last week we have about 6 ft. more to drive to cut the lode. In the 46, driving east of cross-cut, on the new lode, the copper part of the lode is not quite so rich at present, worth for copper ore 6*l.* per fathom. In this level, driving west, the lode is 2 ft. wide, worth for tin and copper ore 6*l.* per fathom. We shall sample on the 20th inst. about 30 tons of good quality copper ore, which will be 10 tons more than our last sale.

PLYLIMMON.—John Garland, Nov. 8: In the 36, east of the new shaft, the progress is still being made. The lode continues small and poor. In the same level west from Jones's winze the lode is large, showing spots of ore, but not sufficient to value. In the same level east from Jones's winze, the lode is large and well open, composed of calcspar, killas, blende, and good stones of lead ore; a very fine lode. In the 56, west of Herbert's winze, the lode is more compact and richer, letting out water freely, and produces about ½ ton of lead per fathom. In the same level east of winze continues in a productive lode, which produces fully a ton of lead ore per fathom. This end is now nearing the cross-conrse; when through an important improvement may be expected. The stopes in the back of the 36, east of new winze, have not undergone any change calling for special remark. Drawing and dressing are being kept on steadily, and good progress is being made towards another sampling.

PRINCE OF WALES.—J. Andrews, Nov. 7: The dividing and casing of Vigar's shaft will be completed to-day to the shallow adit level, so that to-morrow we shall commence to drive that level west from shaft, and I hope in a short time to get at the deep adit, and as soon as the shaft is put in order for drawing we shall at once commence to drive that level west, where we hope to make some good discoveries. The distance between the shallow and deep adit levels is 19½ fms.

RED ROCK.—John Kitto, Nov. 5: Since the date of my last report we have completed the sinking of the engine-shaft to the 72, and have commenced to cross-cut towards the lode, which I hope to reach in about five weeks from this date. There has been no great change in any part of the mine during the past month. The 10 east is still looking very well, and is yielding good saving stuff for lead and blende, and the lode in the adit level in the western hill is looking very kindly. The new dressing machinery is working well, and we shall sample a good parcel of ore before the end of the current month.

ROMAN GRAVELS.—A. Waters, Nov. 8: The ends and stopes throughout the mine are yielding ore in quantities, equal to those named in recent reports. Our sampling next week will be 180 tons of lead ore, being four weeks since our last sampling. Surface work progressing fairly.

ST. HARMON.—John Kitto, Nov. 5: The 35 west is looking much better than it has for a long time past, and the stope in roof of same level is yielding more ore than usual, but there is no other change of importance in any other part of the mine. In the 48 cross-cut south we have intersected a lode about 4 ft. wide, but this is not one of the lodes for which we have been driving, both of which being still further ahead, but one of these I expect soon to reach. The lode in the 67 east has split up into branches, and we are now cross-cutting north in order to prove the same, but have not yet reached the hanging or north side. The same level west is without change. The machinery is all in good order, and everything progressing satisfactorily.

SAINT PATRICK.—William Francis, Nov. 7: We have now a splendid bearing white limestone in the 120 yard north cross-cut, and I have no doubt the next vein cut will prove highly productive and valuable. The chert in the 60 yard cross cut is a little easier for driving, and very promising.

SOUTH CONDURROW.—William Rich, William Williams, Henry Abraham, Nov. 7: The ground is rather easier tor sinking Plantation shaft, and good progeess is being made. The 50, on the West Basset lode, is cleared and secured to the end, and we have begun to drive the same; this level has been idle for the last five or six years. The ventilation not being good we are now putting in pipes to improve the air, with the view to get under the Plantation shaft. The 40, east of engine-shaft, is worth 10*l.* per fathom. The 40 west yields a little tin. The 50 fm. level east is worth 10*l.* per fathom. The 50 fathom level west carries stones of tin. The 60 fm. level west is worth 8*l.* per fathom. The rise in the 60 west is worth 20*l.* per fathom. The rise in the 70 west, towards the Plantation shaft, is worth 10*l.* per fathom. We have not yet cut the tin lode in the 70 cross-cut, west of the rise referred to; we consider there are yet 2 fathoms to drive to reach the lode. The copper lode, in the 70 west, is worth 10*l.* per fathom. The 80 east is still worth 40*l.* per fathom. The 93 west is is worth 12*l.* per fathom.

SOUTH CWMYSTWITH.—John Kitto, Nov. 5: There has been no change in any part of our underground working since the date of my last report, but at every point things are going on satisfactorily, and very fair progress is being made. The erection of dressing machinery is now rapidly progressing, and with fine weather I hope to have it at work in a month and dressing operations commenced, and when this stage is reached we shall soon have a parcel of ore ready for market. We have already begun to prepare the stuff for the crushing mill, and the tramroad for conveying the stuff to the dressing-floors is in a forward state, and will soon be completed.

SOUTH ROMAN GRAVELS.—J. W. Powning, Nov. 3: Sheffield: The 45 east of shaft is still in a very kindly lode, yielding stones of lead and blende. There is no change in the 45 west, the lode is still split up and unsettled.

SOUTH TOLCARNE.—William Rich, William Hambly, Nov. 7: The ground is easier for driving in the 10 cross-cut, north of trial shaft, and small branches have been met with, but no lode of importance yet intersected. The lode in the 24, west of north shaft, carries good stones of copper. We are urging on the sinking of the shaft below this level.

TEESDALE.—T. Watson, Nov. 2: Hopkin's Level: The men have got up 11 ft. with the rise in the vein. We have 3 ft. wide of vein in the plate, with stones of lead ore to see in it; it will take 9 ft more rise to reach the hazel; this will be from 9 to 12 ft. thick, then we should have a limestone.—Surface Work: We had a heavy storm of wind and rain on Monday, so that it was a lost day with us again for outdoor work. We have had our jigging machinery in motion to-day. We only have some water-boxes to fix now to have it to work; in the meantime we are letting the machinery run, in order to wear the roughness off the bearings and other fittings before putting it to heavy work.

VAUGHAN.—Nov. 7: In the 32 east the lode is large, and at present unproductive, being disordered by a cross-channel of ground, but we think it will again soon improve. In the same level west of cross-cut, on the south part of lode, the ground is composed of a blue clay slate, carbonate of lime, blende, and lead ore, yielding of the latter from 10 to 12 cwts. per fathom. At surface the dressing machinery is completed, and was to-day set in motion, and appears to work very smoothly, and we shall now commence with the dressing of ore for market. We have yet the washing strait and flat buddle to complete, also to erect a shed over Collom's jiggers and picking table, for which we have timber on the mine, and will get completed as quickly as possible, otherwise but little work can be done in wet and stormy weather, as we are now having.

WEST CHIVERTON.—R. Southey, W. Roberts, James Moyle, Nov. 7: Batters' engine-shaft to sink from the 160 to the 170, by nine men and three boys, at 40*l.* per fathom; the lode is large, and produces good stones of lead occasionally. The 160 to drive west of Batters' shaft, 20 fms. certain, by six men, at 7*l.* 10s. per fathom; the lode is 2½ feet wide, worth 15*l.* per fathom for lead. The 160, to drive west of cross-cut, on north lode, by six men, the month, at 6*l.* 10s. per fathom; the lode is 4 ft. wide, worth for lead and blende 20*l.* per fathom. The 150, to drive east of Batters' shaft, by six men, 20 fms. certain, at 8*l.* 10s. per fathom; the lode is 3 ft. wide, worth for lead 5*l.* per fathom. The 150 cross-cut to drive north, east of Batter's shaft, by four men, the month or cut the lode, at 6*l.* 10s. per fathom. A winze to sink from the 150 to the 160, west of Batters' shaft, or 10 fms. certain, by six men, at 8*l.* per fathom; the lode is 3 ft. wide, worth for lead 10*l.* per fathom. The 130, to drive east of Batters' shaft, on north lode, by four men, the month, at 8*l.* per fathom; the lode is 4 ft. wide, worth for lead and blende 20*l.* per fathom. The 100 cross-cut, to drive north of Batters' shaft, by four men, the month or cut the lode, at 7*l.* per fathom. The 140, to drive east of Hawkes' shaft, by six men, the month, at 12*l.* per fathom; the lode is 4 ft. wide, and worth for lead 15*l.* per fathom. Our stopes and tribute pitches are producing their usual quantities of lead and blende, and the underground department is opening quite as well as for some time past. At surface our dressing and other machinery is working very well.

WEST CRAVEN MOOR.—D. Williams, Nov. 8: The Blackhill adit level is within 1 fm. of being under the new (Blackhill) shaft, and is let for the month to eight men to drive at 8*l.* per fathom. The vein in the end is opening out most satisfactorily, being fully 5 ft. wide, its component parts being spar, barytes, and branches of lead ore. No. 3 and 4 stopes, in back of level, by two or four men; lode 5 ft. wide, worth 30 cwts. of ore per fathom. No. 2 stope, in back of level, by two men; lode 6 ft. wide, intermixed with branches of lead ore, being good saving work for dressing. The new Blackhill shaft from surface is being sunk by a full pare of men, and is within 3 ft. of the level, which I hope to communicate with this week. The vein in the bottom is over 6 ft. wide, and composed chiefly of barytes, mixed with patches and branches of lead ore. We shall cut plat and prepare to sink for a 10 fm. level below adit as soon as the shaft is down, in order to get under the course of lead ore gone down in the bottom of the level.—New West Shaft: Two or four men are set to sink below the 20 west of shaft, in a vein 3 ft. wide, worth 1 ton of lead ore per fathom; two men to stope in the back of the 20 east of shaft, vein 18 in. wide, worth 1 ton of ore per fathom.—New East Shaft: Four men are set to drive the 20 east upon No. 2 vein, at 8*l.* per fathom; lode 1 ft. wide, and producing patches of ore, being saving work for dressing. No. 3 stope, 6 fms. behind the end, by four men; vein 4 ft. wide, chiefly composed of gossan and lead ore, worth 40*l.* per fathom. No. 2 stope, in back of 20, by four men, lode 2 ft. wide, worth 19 cwts. of ore per fathom; two men to drive the 20 east upon No. 3 vein, lode 18 in. wide, filled with spar and good stones of lead ore; two or four men to drive the 20 west upon No. 3 vein; the latter is at present heaved north by a cross-vein. On surface our machinery is working well; dressing and smelting is being carried on as fast as possible.

WEST GODOLPHIN.—John Pope, Nov. 8: Wilson's lode, in the 60, driving west, is 4½ ft. wide, worth 12*l.* per fathom. The caunter lode, in the 70, driving north, is letting out an increased quantity of water. We are daily expecting to cut the killas. We intend fixing the 13 inch drawing-lift at Wilson's shaft, in the 70, to-morrow. The masons have built the stand for the balance-bob, which we shall get to work as soon as possible.

WEST GOGINAN.—J. Kitto, Nov. 2: I am sorry to say I have no improvement to report to you, and at present the lode in the 48 does not look so well as it did at the date of my last report. I expect, however, that we shall have an improvement shortly in driving east from the engine-shaft, as there is a run of orey ground in that direction. We are still cross-cutting towards the south lode in the field below the office, but have not yet intersected it, but I hope to do so by the time for writing my next monthly report.

WEST PATELEY BRIDGE (Lead).—D. Williams, Nov. 8: The 56 has been extended during the month 6 fms. 3 ft., and is 103 fms. 3 ft. west of the joint adit level, and within about 7 fms. of being under the ore ground left by the former workers. We have driven through a continuous course of ore in the bottom of the level for the last 10 fms.; the vein varying from 3 to 6 ft. wide, and filled with spar, pyrites, and branches of lead, worth about 15*l.* per fathom. We have a great stream of water in the roof, which is draining the old workings above.—No. 2 Shaft: This shaft is sunk to a depth of 21 fms. from surface at the 20, or 1 fathom above the bottom; we have commenced driving two levels north-west and south-east upon the vein. The 20 fathom level south-east is extended 2 fms. from the shaft; the vein has this week improved, being over 4 ft. wide, composed of spar, gossan, and lead ore, worth 16*l.* per fathom. The 20 fathom level north-west is extended 1 fm. from the shaft; the vein here is 3 ft. wide, and worth about 1 ton of lead ore per fathom.—New Discovery Shaft: Two or four men to stope the back of the 10, west of shaft, in a lode 2 ft. wide, and producing good saving work for dressing. Two men to drive the stope in back the 10, east of No. 1 shaft, in a vein 2½ ft. wide, and producing saving work for dressing of good quality. Our surface grating and dressing carried on as fast as weather will permit.

WEST ROSKEAR.—H. Stephens, W. Bennetts, Nov. 8: The water has been drained so far as to admit of our going into the 24. It is driven 23 fms. west and 18 fms. east of engine-shaft. It is a large, masterly lode, impregnated with mineral, but, so far as we can judge, not sufficient to value. We dropped the lift again to-day. This is sufficient to drain the level to the bottom, which we hope to do in readiness to set to drive on Saturday next. The lode in the winze sinking below the 12 is looking well, opening out good mineral ground. We have just commenced sinking another winze below the 12, about 16 fms. east of the previous one. The lode in this will yield from 3 to 4 tons of blende per fathom, with good indications for further improvement.

WEST WHEAL TOLGUS.—Nov. 7: Since our report last week we have made but little progress in the bottom of Taylor's shaft. A few days ago the top part of the receiver broke out in the cistern at Taylor's engine. We worked on until Saturday tolerably well, on that day we arranged to put in a new valve and seat to Richard's engine (top seam). We stopped the engine at noon on Saturday, and only got it to work on Sunday morning, so that the water got nearly up to the 125, at Taylor's, and to the 70, at Richard's shaft, but we ran it in fork last evening. Richard's engine is working better since we changed the valve and seat. It is setting day on Friday, and we hope we shall be able to report a little improvement in the 145 end. The lode and ground are changing for the better. We have not taken down much of the lode in the 135 west since our last report, but we still think the main part of the lode is south of what was opened on at first. The cross course is very much broken up, and irregular. The lode in the 125 is still yielding 3½ tons of ore per fathom—good ore. The lode in the winze under the 115 is poor, and the ground spare for sinking in. There is no alteration in any other place except the 75 end, west of Richard's, which is looking kindlier, with stones of ore. This hindrance we have had with the water will make a little against our sampling. It is early to say what we shall have, but we calculate on having from 350 to 360 tons of ore, of a better produce than the last.

WHEAL CREBOR.—John Andrews, Nov. 5: The following was our setting on Saturday. To drive the 120 end east by six men, at 10*l.* 10s. per fathom; lode 5 ft. wide, worth 12*l.* per fathom. To stope the back of the 120 by six men, at 4*l.* 5s. per fathom; lode 5 ft. wide, worth 15*l.* per fathom. To drive the 108 east by four men, at 8*l.* 10s. per fathom; the lode here is in rather a disordered state, but is carrying a leader on the north side 6 in. wide, which will yield 1 ton of mundic per fathom, with good stones of copper intermixed. The west stope in the back of the 108 was set to six men at 4*l.* 15s. per fathom; lode from 4 to 5 ft. wide, worth 10*l.* per fm. The east stope in back of same level was set to six men, at 3*l.* 10s. per fathom; lode 4 ft. wide, worth 8*l.* per fathom. To drive the 72 east by two men, at 4*l.* 10s. per fathom; lode 2½ ft. wide, but is poor. To cut through the lode at the 48 east by four men, at 7*l.* per fathom; at this point we have for several months been carrying about 3 ft. of the north part of the lode, which has yielded in places 3 or 4 tons of mundic per fathom, and some good quality copper ore. We have now set to cut it through, so as to ascertain its width and value.

WHEAL GRENVILLE.—T. Hodge, Nov. 5: The 150 is set to drive east of the western shaft, to eight men, at 12*l.* per fathom; the ground here is a little harder than usual, but notwithstanding this it produces rich stones of tin, and opening out ground that will pay well to take away. No other bargains set, their contracts not being out. Our capstan will be delivered to-morrow, and the capstan engine the following day, when they will be erected at once. We are getting on pretty well with the stamping engine, and I hope, all well, to start some time to-morrow with the usual number of heads—48. We are also in a forward state with the woodwork for another 24 heads, and as soon as we can lay down the tramroad to deliver the stuff into the stamps we shall at once connect another two axles, when our returns will materially increase. I was all through the mine on Saturday last, and from the appearance of the bargains, on the whole, I consider that the mine is opening out fairly well

— Nov. 8: The water is about 3 fathoms above the back of the 160. The lode in the 150 end is spare for progress, but is yielding good stamping work for tin. The 150 is extended west of the north shaft about 5 fathoms; we are making very good progress here. The stopes, on the whole, are yielding very fair quantities of tin. One of the cranks to our stamping engine got loose this morning, so we had to stop and heave up the shafts to key it up again, but we hope to start again this evening. The new engine works very well.

WHEAL KITTY.—S. Davey, R. Harris, Nov. 2: The various points of operation are without alteration to note in the past week; value same as reported in our last.

WHEAL NEWTON.—H. Bennett, Nov. 8: No. 3 stope, in the back of the 40, east of Cook's shaft, is looking much better, yielding some rich silver ore. Nos. 1 and 2 stopes, in the 40, west of Cook's shaft, have also improved: the lode is 2 ft. wide, yielding silver ore. The lode in the 30, east of Lamping's cross-cut, is 18 in. wide, yielding good saving work. All other points of operation remain just as when last reported on. We are erecting a horse-whim on Hampton's shaft in order to keep the water, &c.

WHEAL PRUSSIA.—W. Tregay, Nov. 7: The 40 east end is worth 1 ton of black tin per fathom, and the 40 west end 2 tons; in the latter end four men have broken 1 ton of black tin in six days in driving the end. The lode in the deep adit end produces good stones of tin, but we have several fathoms further to get into the run of tin ground being opened by the other levels. We hope soon to get our steam whim at work and to commence stoping.

WYE VALLEY.—John Kitto, Nov. 3: Since the date of my last report we have completed the timbering of the engine-shaft to the 46, which has enabled us to draw the stuff from that level with the machine, and we have commenced to drive the said (46) levels both east and west of shaft with full force, and shall push on the same with all possible speed until we reach the runs of orey ground. We are now engaged in timbering Tippett's shaft from surface to the adit level, and preparing the same for pumping and drawing with the machine, and I hope to have this completed and be ready to resume the sinking in about a month from this time. We are sinking a winze below the 22, on the middle part of the lode, and directly underneath the rich bunch of ore that we had in the 10, where we have at present some very good lead, and so far it looks as if it would continue to go down, but I am afraid that we shall not be able to sink far until the 46 has been driven further towards this point from the engine shaft. This ore is bound to carry down somewhere, and I have not the least doubt that the 46 level will prove equally as rich as the 10. All other points of operation are much the same as they have been for some time past. We sampled yesterday 30 tons of lead ore, for sale on the 12th inst.

ECHOES FROM THE MINING MARKET.

Tin shares have occupied the chief attention of the week. When it was announced on Saturday last that the standards had advanced 3*l.* per ton, the bound in prices was something extraordinary, and shares changed hands rapidly. It was generally thought that the rise was an official one, therefore, when on Tuesday a telegram reached the market announcing that the smelters had raised the standards 5*l.* per ton, this was reckoned as an additional advance, and the demand for tin stock set in with increased vigour. In fact in some cases it was a matter of extreme difficulty to buy shares at even the quoted advances. But on Wednesday all this was changed, Shares ominously began to be offered, and the eager buyers of Carn Brea, Cook's Kitchen, Dolcoath, South Condurrow, Tincroft, and Wheal Grenville became silent. The difficulty that had arisen was soon apparent. The dealers could not reconcile the reported advance in the standards with the price of tin in London. No confirmation of the rise so confidently announced had arrived, and visits to the Exchange, where the London Metal Market is held, still showed no sufficient alteration to warrant such an advance in two days. Both Straits and Australian, in fact, were a trifle weaker. So down went prices until the reaction most illogically (where was logic or common sense, however, ever displayed in a reaction?) carried quotations below those of Saturday when the 5*l.* rise was announced, despite the patent fact that if tin shares were worth buying on the rise of that day, they were, at any rate, not worth less when the question was, not whether the 3*l.* had been lost, but only whether an additional rise had occurred. But soon all the mystery was cleared up. It was found to be perfectly true that the smelters had advanced the standards 5*l.* on Tuesday, but the advance was more apparent than real, for it was of no extra advantage to the miner. The 3*l.* advance on Saturday turned out to be an unofficial one, and with the previous rise of 2*l.*—also unofficial—represented the excess given by the smelters over their official standards. The 5*l.* advance was, therefore, merely the raising of these official prices, so that they might agree with those upon which the price was calculated for ores. The mistake made in announcing this as another rise has created much disappointment, and has caused tin shares to be weaker than they otherwise would have been. The rise that has really taken place in the price of tin should be of sufficient encouragement to cause a steady market for shares, and to allow brighter hopes to be indulged in respecting the immediate future of the metal.

Lead shares have been in very fair demand, considering the absence this week of good investing orders. Rookhope appears to be making steady progress, the latest reports being most encouraging. The shares have advanced to 21s., 23s. Great Laxeys have also been in demand, and close 21 to 22. This is one of the best and steadiest lead shares dealt in on our market. Other lead shares show little change to notice. We must, however, remark a rise in East Van, but it is purely a speculative one.

In foreign shares Eberhardt and Richmond have absorbed the chief attention. The rise in Richmond has been due to large buying orders coming upon a market already advancing, and further, by the issue of a very favourable report by the directors, who announce a dividend of 7s. 6d. per share. The quality of the ore has much improved, and the costs of the lawsuit have been paid to date. The appeal, of course, is still pending, and few can say with any certainty when it will be finally decided.

JAMES H. CROFTS.

THE PROFITS OF BRITISH LEAD MINES.

The remunerativeness of mining for metalliferous minerals was very fully discussed some three or four years since in his treatise on "Britain's Metal Mines," by Mr. JOHN R. PIKE, of Crown Chambers, Threadneedle street, when he pointed out its importance as a national industry, and as a field for investment. Since that time an almost unprecedented depression has been felt in nearly every department of the metal market, lead being the only metal that has anything like held its ground; yet how fully this has sufficed to compensate for any disappointment which has been experienced in other classes of mining is clearly shown in a supplementary chapter to his former treatise which Mr. Pike has just completed—"Facts and Figures, showing the Security, Profit, and Permanence of British Lead Mines"—in which he explains that mining for lead is quicker, more profitable, more permanent, safer, and less costly than mining for other metals, and that the price of lead does not fluctuate nearly so much as do the prices of copper, tin, and iron. He gives tables from official sources, shewing that whilst best selected copper declined from 104*l.* 6s. in 1872, to 73*l.* in October, 1877; English block tin from 152*l.* 18s. to 74*l.*; and Scotch pig-iron from 5*l.* 10s. to 2*l.* 13s., the decline being constant and continuous in each case, lead has been at all times firm, and is even now above the price of 1872, the quotations of English pig lead being 20*l.* per ton in 1872; 23*l.* 6s. in 1873; 22*l.* 2s. in 1874; 22*l.* 9s. 4d. in 1875; 21*l.* 13s. 10d. in 1876; and 20*l.* 10s. in October, 1877.

There is another most important feature in lead mining which, Mr. Pike remarks, ought to be kept in view by capitalists—the much higher value of lead ore per ton, as compared with the ores of copper, tin, or iron. The average value of lead ore is at least 12*l.* per ton, whilst that of the copper ores, yielded by British mines scarcely exceed 3*l.* per ton, and the average value of all the iron ore raised in the United Kingdom, amounting to nearly 16,000,000 tons annualy, does not exceed 8s. per ton. The value of tin ore in the stone, as raised from the mines, is less than 1*l.* 5s. per ton, and the ore has to undergo the expensive and tedious processes of stamping, washing, and burning before it is in a condition to be brought to market. Thus lead ore (worth 12*l.* per ton) which is mined for and raised as cheaply as copper ore (worth 3*l.* per ton), and much cheaper than tin ore (worth 1*l.* 5s. per ton), must pay much the best profit. The permanency of lead mines, in which they far exceed those of copper and tin, is a most important consideration. Many of the formerly rich and productive copper and tin mines in the Gwennap, Redruth, and Camborne districts in Cornwall are now either closed or their produce has dwindled down to a tithe of what it used to be; but the lead mines of Wales and the North of England maintain their productiveness.

Mr. Pike has certainly succeeded in bringing together a vast amount of really valuable information, and his suggestions as to when and how the capitalist may invest his money successfully will, if followed, prove a source of great pecuniary advantage to the capitalists themselves.

Mr. Joseph Pearson, of Sheffield, has been appointed official liquidator of the Shirland Collieries Company; and Mr. B. P. Daniels, of the Poultry, London, of the Hammersmith Town Hall Tavern Company.

TO THE METAL TRADE.

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The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, NOV. 9, 1877.

IRON.	£ s. d.	£ s. d.
Pig, GMB, f.o.b., Clyde..	2 12 7-	—
,, Scotch, all No. 1	2 14 0-	3 10 0
Bars, Welsh, f.o.b. Wales	5 5 0-	5 10 0
,, ,, in London.	5 17 6-	6 0 0
,, Stafford., ,, .	7 0 0-	8 0 0
,, in Tyne or Tees ...	5 10 0-	5 15 0
,, Swedish, London ..	9 2 6-	9 12 6
Rails, Welsh, at works..	5 0 0-	5 2 6
Railway chairs	— — -	—
,, spikes	— — -	—
Sheets, Staff., in London	8 15 0-	9 0 0
Plates, ship., in London	7 0 0-	7 5 0
Hoops, Staff.	7 10 0-	8 0 0
Nail rods, Staff. in Lon.	7 0 0-	—
STEEL.		
English, spring	16 0 0-	20 0 0
,, cast	35 0 0-	45 0 0
Swedish, keg.....	16 0 0-	—
,, fag. ham.	17 0 0-	—
LEAD.		
English, pig, common	20 0 0-	20 2 6
,, ,, L.B. nom.	20 5 0-	—
,, ,, W.B.	20 10 0-	—
,, sheet and bar..	21 0 0-	21 5 0
,, pipe.....	21 10 0-	—
,, red	22 5 0-	22 10 0
,, white	27 5 0-	28 0 0
,, patent shot ...	24 10 0-	—
Spanish	19 12 6	19 15 0
QUICKSILVER.		
Flasks of 75 lbs., ware.	7 7 6-	—
SPELTER.		
Silesian or Rhenish ..	19 5 0-	19 7 6
English, Swansea	21 0 0-	—
Sheet zinc	22 10 0-	24 0 0

TIN.	£ s. d.	£ s. d.
English, ingot, f.o.b...	76 0 0-	—
,, bars ,, ...	77 0 0-	—
,, refined.....	78 0 0-	—
Australian	69 0 0-	69 10 0
Banca	71 0 0-	72 0 0
Straits	69 0 0-	69 10 0
COPPER.		
Tough cake and ingot.	70 0 0-	71 0 0
Best selected	71 0 0-	73 0 0
Sheets and sheathing .	74 10 0-	—
Flat Bottoms	79 0 0-	—
Wallaroo	74 10 0-	75 0 0
Burra, or P.C.O.	73 10 0-	—
Other brands	72 0 0-	—
Chili bars, g.o.b..nom.	64 10 0-	—
PHOSPHOR BRONZE.		
Bearing metal	£112	0 0
Other alloys	£120 0 0-	140 0 0
BRASS.		
Wire	8d.	- -
Tubes.....	10	- -
Sheets	9	- -
Yel. met. sheath. & sheets.	5¾	- 7½
Nails composition.....	8¼	- 9¾
TIN-PLATES.*	per box.	
Charcoal, 1st quality ...	1 0 0-	1 1 0
,, 2nd quality ...	0 19 6-	1 0 0
Coke, 1st quality	0 18 0-	—
,, 2nd quality	0 17 6-	—
Black .....per ton	16 0 0-	16 10 0
Canada, Staff. or Gla., at Liverpool	11 10 0-	12 0 0
Black Taggers, 450 of 14 × 10	30 0 0-	—

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than IC quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—The grand procession of the Lord Mayor's Show has partly interrupted business to-day. Our markets, however, have not undergone much alteration during the week, and they have for the most part been quiet but steady. It seems useless to attempt to influence them at a time like the present, and we must first see politics put right before any satisfactory change can take place; at the same time prices are moderately low in some metals, and this rather encourages holders to suspend sales. If Plevna should fall, and overtures of peace are made, the position of our markets might suddenly improve, but as that event is problematical there is not any bright prospect of an immediate improvement, and, as we have before stated, we do not anticipate any general revival until the close of the year. There are, of course, always some little movements going on, but they fail to attract attention, or make any lasting impression upon the bulk of the buyers, as they still decline to look forward with hopeful views of the future; besides, this is not the most promising part of the year to inspire confidence, and business looks as if it would remain dull for the next five weeks. It is not desirable that our markets should be unsettled by any material fluctuations, and we feel sure that if sellers will only exercise a little more patience their time will not be much longer delayed, but to try to force a market is a very unwise proceeding at any time, but more particularly just now, as it would be more likely to fail than succeed.

A variety of means have been devised from time to time to control trade, but as they have always been in opposition to the public good, they have rarely answered for more than a very short season, and have ultimately succumbed to the universally acknowledged law of supply and demand. Monopolies have been tried, and struggled hard to be maintained, but in vain. Trade combinations have been formed, and altogether found to be impracticable. Defence associations have been set up, and as quickly dissolved. Mutual understandings have been entered into, and binding agreements signed, but they have also failed to accomplish the object for which they were intended. Everything, in fact, which the imagination of man could think of has been put forth and utterly broken down, until combinations, associations, and unions have become a nuisance to the public, and a reproach to all who have anything to do with them. It is not surprising that such ill-concocted measures should prove unsuccessful in a country like ours, where free trade and liberty of action is established, more especially as there is a great want of principle and common honesty in uniting interests for the set purpose of upholding a fictitious state of things; indeed, it is exceedingly derogatory on the part of anyone thus to forfeit his honour and independence, and to lose in reputation what he never can be compensated for, and it would be an event to rejoice over that the last conspiracy of the kind in the metal trade had ceased to exist. Restriction and protection must necessarily impede the progress of legitimate trade, although its advocates may possess an imaginary idea that an advantage is to be gained by it, yet it is perfectly certain that such is an entirely mistaken notion, for it neither takes or gives a benefit. Fair and open competition is the most straightforward and honourable course to pursue, and would do more to re-establish confidence and restore trade than anything that could be derived from trade protection schemes, and we would like to see all such entanglements cleared away, and both masters and men free to act as they please. It is very unusual for buyers to hold meetings to oppose the interest of sellers, and why thus should sellers be allowed to injure a very large section of Her Majesty's loyal subjects? Such meetings ought to be illegal and prohibited, and we should soon hear very little about differences between employers and employees and trade disputes. The country ought to be delivered from these evil obstructions, and the sooner the better, for such an accumulation of vexatious impediments is enough to spoil and ruin the commerce of the most favoured nation in the world. We trust, therefore, a remedy will be discovered to prevent trade disputes, and an effectual check put upon trade obligations, and with these drawbacks removed there will be little to fear but what the country would rapidly recover its former state of progress and prosperity, and again take the lead in all commercial and industrial enterprise.

COPPER.—On Tuesday, the Australian sales of Wallaroo and copper were held at the Baltic, and the average price realised for the Wallaroo cake was 74*l.* 0s. 9d., and the ingots at 74*l.* 2s. 3d.; and the Burra cake sold at an average of 73*l.* 5s. 2d., and the ingots at 73*l.* 13s. 6d. The result was considered somewhat remarkable; and so the auctioneer of the Wallaroo sales evidently thought, for he repeatedly expressed himself to this effect, and stated in the most complimentary and gratifying manner, that buyers must be influenced by the spirit of the *Mining Journal*; and when he received a bid from a fresh and unexpected quarter he facetiously remarked that that buyer could not have read his *Mining Journal*, which naturally caused confusion to the buyer, but afforded immense amusement to the other section of the room to think that there could possibly be any one so venturesome as to attend the sale without having first consulted his *Mining Journal*. We avail ourselves of the earliest opportunity to tender our sincere acknowledgments to the worthy auctioneer for the publicity and distinguished terms in which he referred to us. Those of our readers who never miss reading our weekly report will not be surprised to hear how the sales went off, as they were fully prepared what to expect. Our article of last Saturday week expressly foretold coming events, and for a long time we have pointed out the invariably extreme difference existing between Wallaroo and Burra. The prices quoted at the recent sales would seem to indicate that buyers were at last sensible of the fact, and there were only as many shillings per ton difference between the highest price of Burra and the lowest price of Wallaroo as there were pounds before the sale—that is to say, Burra ruled about 74*l.* 10s. and 75*l.*, whereas Wallaroo was quoted about 80*l.*, and the lowest price for Wallaroo at the sale was 73*l.* 15s., or a fall of about 6*l.* or 7*l.* per ton. Burra, on the other hand, was sold as high as 73*l.* 10s., or a fall of about 1*l.* per ton, and about 30s. under the last public sale price in July. We think the Australian Copper Company ought to be very well pleased with the prices they obtained, for in comparison with Wallaroo they have achieved a great victory. The reduced price is a mere trifle considering the change which the market has undergone; but the characteristic feature is the elevation of its relative value, which will do much to maintain its future career.

It is, unquestionably, one of the finest descriptions of copper imported, and buyers will never do amiss by ordering the Burra brand. Chili bars since their reduction in value have moved off rather more freely, and buyers are beginning to think that present prices are not dear for forward prompts. Several transactions are reported at 64*l.*, with three months prompt, and cash business at 74*l.* 10s. to 74*l.* 15s. for g.o.b., 65*l.* for Lota and Urmeneta, and 66*l.* for Lambert. Indian sheets have not been much enquired for in the market, but prices do not appear to have suffered any further depreciation. According to the Board of Trade Returns, the exports of copper of all kinds for the first ten months of the year ending Oct. 31 amounted to 11,687 tons, against 14,842 tons in 1876, and 12,19· in 1875, and the imports show a considerable increase, taking ores, regulus, wrought and unwrought, altogether the figures for the first ten months of 1877 amount to 157,119, against 117,9·5 in 1876, and 108,197 tons in 1875. By the mail from Bombay leaving Oct. 13 reputed copper tiles and Brazier saleable at some advance, but yellow metal weaker. If the present price of copper should increase the consumption its statistical position may gradually improve, and any falling off in supplies would, undoubtedly, arrest the downward tendency, but the difficulty to decide is whether we have attained the maximum of stocks, because if it be so there would, probably, follow higher prices, but we scarcely look for them yet awhile, as figures stand against such a supposition. Later on we shall be better able to judge what course the market will assume. In the meantime holders would do well to realise a portion of their stocks, and give relief to the market. Chili bars to-day are quoted at 64*l.* 10s. for g.o.b., and Australian is steady at about the sale terms and conditions.

IRON.—The advance of 2s. 6d. to 5s. per ton in Welsh bars has been maintained, and further orders continue to be placed at 5*l.* 17s. 6d. to 6*l.* per ton. This improvement is confined solely to Welsh iron, but we fear that it will only prove a temporary advantage, not that the price is exorbitantly high, or that buyers object to it on these grounds, but simply on account of foreign iron ruling so much below it. The quotations for Belgian are not any better, but, on the other hand, slightly lower, and nail-rods are now quoted as low as 5*l.* 4s. 6d., less 2½ f.o.b., Antwerp. We would again urge masters and men to thoroughly ascertain how it is that iron can be sold cheaper abroad than what it can be produced here, and if it is at all possible to effect the necessary change to do so at once, before it is too late. Something must be done before long, or we shall lose our trade altogether, and simply because it wants looking into and re modeling, and no one will take the trouble to move in the matter. Makers go plodding on in the same old-fashioned style, and leave things to take their own course, which will end very soon by the trade leaving them. It certainly seems marvellous that enterprising little Belgium should be able to compete with us successfully in one of the principal commodities of our country, and that we are powerless and incapable of retrieving our lost position. It really seems most absurd and ridiculous, but it is a fact nevertheless. Our mutual good neighbour—and all honour to our Belgian brethren—has eclipsed the Englishman, and with all our past experience we shall yet have to cross the water to learn a lesson in iron-making. We cannot go on with others ahead of us, that is impossible; neither can we remain as we are, for that is an equally untenable position; and what to do our masters are at a loss to discover. The whole trade is in the most unsatisfactory state; the works complain of not being able to make profits, and the men complain of the reduced wages. The one looks upon the other as exacting more than his due and fair proportion, and, like everything else that is going wrong and crumbling to decay, there is nothing but grumbling and discontent. If Belgian nail-rods or bars can be sold at a near port of shipment we should like to know how it is that the lowest quality that can be made in England cannot be bought below 5*l.* 15s., or at least 10s. per ton above Belgian? Is it a question of wages only which enables the Belgian ironmaster to undersell us? In that case the English workman ought to know it, and he would be better satisfied with what he gets, and, perhaps, to obtain increased employment he might be disposed to submit to a lower scale than at present; or, if he is so very unreasonable as to decline to submit, foreign labour will have to be imported, for we cannot afford to lose our trade on that account; but if, on the other hand, the difference in the terms of labour is so trifling that it does not affect the price, then what other reason is to be given?

Capital can be furnished in abundance here, therefore it is not a question of means, and it would seem to rest either in the expense of mining, or the cost of smelting, or the mode of manufacture. The expense of transit may also have something to do with it, and are these matters so difficult to ascertain that we cannot find them out, or must we admit that Belgium possesses certain natural advantages over us that we must hereafter surrender our trade to her, and quietly sit down and mourn over our loss? If so, then, our spirit of enterprise has indeed departed, and the successors of our great iron men, like Thorneycroft and Crawshay, have not the energy and perseverance of their ancestors. We trust for their own sakes, as well as for the sake of a very large class of Englishmen who are associated with the iron trade in its various branches, that no effort will be wanting on their part, in bringing the price to a level with that of Belgium, or any other country, and that our producers will not be content to stay here, but so continue to reorganise the whole system that instead of raising iron at a loss it may be turned out at a very fair amount of remuneration. Scotch pigs have ruled rather higher; to-day's quotation is 52s. 7d. m.n. cash.

SHIPMENTS.

Week ending Nov. 2, 1876	Tons	9,284
Week ending Nov. 3, 1877		8,273
Decrease		1,011
Total decrease for 1877		8,853
Imports of Middlesborough pig-iron into Grangemouth:—		
Week ending Nov. 3, 1877	Tons	5,618
Week ending Nov. 4, 1876		4,170
Decrease		1,448
Total increase for 1877		63,379

FURNACES.

In blast Nov. 4, 1876	117
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TIN.—The advance in price is a great boon to miners, smelters, and importers, and we heartily congratulate them on the turn which the market has taken in their favour. On the other hand, the rise is a great loss to manufacturers, consumers, and shippers, and we sincerely sympathise with them on the turn which the market has taken again-t them, but lest our expressions of felicitation and commiseration coming together may appear strange, we would explain that the interests of all *bona fide* traders have our warmest and best support, and shall ever receive our greatest protection, but we have no respect for interlopers and rank speculators, for they only spoil and prey upon our markets, and thereby impede the progress of legitimate business. The market to a great extent is still in the hands of speculators, and some of them are beginning to show an anxiety to realise their profit, and we do not blame them for securing a profit while the chance remains. In a quiet market, like we have lately experienced, a reaction is almost sure to follow, and those who have been lulled into a false security often see their error when it is too late and past remedy. As soon as ever the demand begins to droop it does not pay to wait or hold out for price. The realisation must be effected even at a liberal concession, and holders must not be carried away by the prices reached under a momentary impulse and undue excitement. To those who have it still in their power to make a profit upon recent purchases we should say take it at once, and be grateful for the opportunity. In no other metal is there any profit, business continuess so indifferent that there is very little prospect of amendment for the next month or two. Of course, it is impossible for anyone to divine the future, but we must not ignore facts, and experience teaches us what conclusions to draw; they may not always be correct, it would be strange indeed if they were, but by close and constant observation it is seldom that a wrong opinion is formed. However, when speculation sets in, the most most elaborate calculation is useless, for speculators, as a body, seem to be moved by feeling, and follow one another like a flock of sheep, without rhymn or reason.

The general disposition of consumers is not to buy in excess of actual requirements, and we think they are right, for unless Tasmania is nearly worked out there is no doubt there will be plenty of tin. The stock in London on the 1st inst. was only 8 tons less than the previous month, and long before any material impression is made upon the stock here there will probably be ample to take its place. The exports of tin for the first ten months ending Oct 31 amounted to 61,387 cwts., against 93,955 in 1876, and 74,512 in 1875, and the imports for the same periods are 248,512 cwts in 1877, 268,526 in 1876, and 193,335 in 1875. The accounts from New York are less unfavourable, and the market there is following the course of the European Exchanges. Sales of 2700 slabs of Straits are mentioned, but the price has not transpired. The quotation is 16c. to 16¼c. for Straits and Malacca, 15¾c. for English, 15⅞c. for refined, and 15¾c. to 16c. for Banca. The English smelters here are mostly quoting 78*l.* for blocks and 77*l.* for bars, but in second-hands business has been transacted at 1·s. per ton below these prices. Straits and Australian to-day are valued at 69*l.* to 69*l.* 10s., the market closing a little undecided.

QUICKSILVER.—There has been an active demand all the week, which importers have only satisfied in part at 7*l.* 5s., and since Wednesday afternoon they have refused to sell at all. Their stock is now but light, and they are, consequently, not free sellers. The nearest value is 7*l.* 7s. 6d. The Californian market remains steady, without feature, the demand being sufficiently large to take off the fresh supplies as they come forward.

Messrs. GRENFELL and RICKARDS—COPPER: The market is quiet, demand being still slack for Birmingham and India. There are not wanting, however, signs that we are getting towards prices which will attract speculators. All the furnace stuff offering at present rates is quickly absorbed, apparently not only by smelters. Chili bars are in demand at 64*l.* 10s., sellers wanting 65*l.* At the sale on Tuesday last, 800 tons of Wallaroo cake and ingots sold about 74*l.*, and 200 of Burra about 73*l.* 10s.—TIN: There has been a large business done in foreign during the past month, which shows that consumption continues on a large scale, although there is so much grumbling about want of business. The shipment of Straits to this country is again small, during the past six months consisting of only 480 tons. In the face of this it is asserted by those best informed that there is no accumulation of stock at Penang or Singapore. China and America have absorbed large quantities of straits at the present low price.

Messrs. PERCIVAL SANFORD and CO.—There has been more animation in the metal market during the past month, although we are unable to report any real improvement in business.—IRON remains practically unchanged, but some descriptions are obtainable on rather easier terms. Scotch pigs show a slight decline at 52s.—COPPER: Chili bars have been steady through the month, but weakened towards the close. Australian and English are easier.—TIN: The improvement in price, which took place at the close of September, has steadily continued, and progressive rates have been obtained up to 70*l.* for Australian, and 70*l.* 10s. for Straits. The London stock remains, within a few tons, the same as at the end of last month, but the quantity floating is very much reduced.

Messrs. FRY, JAMES, and CO.—COPPER has been dealt in moderately, but not sufficient to maintain prices, which are lower all round, the greatest decline having been in Australian, of which 800 tons Wallaroo and 200 tons Burra Burra were sold by auction on Tuesday last, at average prices of 74*l.* 1s. and 73*l.* 7s. 8d. per ton respectively.—IRON shows no material change.—TIN continued to advance in quotations steadily, and a good deal changed hands up to yesterday, when a pause occurred, and prices receded slightly for foreign.—LEAD.—Demand has been quiet, with turn of prices in buyers' favour.—SPELTER also is quiet, but without quotable change.—TIN-PLATES are steady.

The MINING SHARE MARKET has been greatly excited this week. On Saturday, the 3rd, it was announced that tin had advanced in Cornwall 3*l.* per ton, and on Monday morning a great rise took place in many of the tin mines. On Tuesday a telegram from Cornwall, dated the 6th, which, as it has given rise to much comment, will be more particularly referred to under the head of tin mines, was received by a member of the Stock Exchange, stating that the "tin standard had advanced 5*l.*" This, it seems, was looked upon as another advance, making 8*l.* since Saturday, and thus greater excitement arose, and quotations were again put up. On Wednesday doubts appear to have been thrown on the telegram, and the second advance of 5*l.* on the standard seems to have been generally disbelieved; prices, therefore, gave way, and depression set in.

In other respects the market has been pretty active throughout, and a good business done, with several enquiries for good progressive lead mines.

TIN MINES.—As before stated, it was announced from Cornwall on Monday morning that the standards for tin ore had been put up on Saturday 3*l.* per ton. On Tuesday the following telegram from the purser of several mines in Cornwall was received by a member of the London Stock Exchange:—Redruth, 9·23 A.M., "Tin standards up five." This being made public, and understood as another advance, naturally caused a great rise in shares, and on the following morning the wired report was thus confirmed by post—"Nov. 6. I had the pleasure of sending you a telegram this morning saying the smelters had put up the standards *five*." On Wednesday, no confirmation of this having been received, it was generally looked upon as incorrect or premature, and a fall took place in shares.

In explanation of the telegram the sender now writes—"The standards before Monday last were 65s. and 66s. per cwt., and on the day they were put up to 70s., 71s. per cwt., thus making a rise of *five*, as per my wire to you on Tuesday last." The West Briton offers in one part of the paper to a rise of 3s.—that which was, probably, announced in the Times of Tuesday morning, and in another column to a rise "of 5s. all round when the smelters met at Hayle on Monday;" this, however was, it is added, "*no real advance* in the price paid to the miner, as the excess of 2s. and 3s. had been previously paid."

The explanation of the whole matter, therefore, seems to be this. Early in last week the price had gone up 2s. per cwt., and on Saturday another 3s., making 5*l.* per ton altogether. This was known here on Monday morning, and upon it the market, as we have said, became very active. On the same day in Cornwall (Monday) the tin smelters had a meeting, and made the previous rise of 2s. and of 3s. per cwt. into an "official advance" of the standard of 5*l.* The private telegram referred to, and which announced this, was looked upon as conveying the impression that another and distinct advance of 5*l.* had been made, and this had the result of creating a still further rise in shares, which was succeeded by a general decline and depression when the truth became known.

Carn Brea advanced on Tuesday, for the reasons above stated, to 57½, 62½, and on Wednesday declined to 55, leaving off 50 to 53. Dolcoath, under the same circumstances, reached 41, 43, and left off 35 to 40. Tincroft advanced to 19, 21, and leave off 17 to 18. Cook's Kitchen, 4½ to 5½, and leave off 3½ to 4½; South Condurrow, 10 to 10½, and leave off, 9½ to 9¾. South Frances rose to 4, 5, and leave off 3 to 4. Wheal Grenville, 4 to 4½; and leave off 3 to 3½. Wheal Peevor, 6, 7, and leave off 6 to 6½. At the West Godolphin meeting the accounts showed a debit balance against the mine of 1000*l.*, and a call of 4s. per share was made. The new 60-inch engine has been erected at considerable cost, and with a rise in tin the mine may make good profits. Penstruthal, 5 to 7; Wheal Agar, 3½ to 4; Wheal Kitty (St. Agnes), 2¼ to 2¾; Wheal Uny, 1½ to 2; East Lovell, 1½ to 2¼.

COPPER MINES are quiet, and there are few transactions to record. East Caradon, 1¼ to 1¾; Parys Mountain, 10s. 6d. to 11s. 6d.; West Tolgus, 69 to 71. Tolgus Consols, 5 to 5½; a good report has been received from the agent.

LEAD MINES are more active, and many enquiries are being made for those of a good and progressive character. Rookhope have been largely in demand, and have advanced to 22s., 24s.; the 42 end has greatly improved. Roman Gravels, 7½ to 8; no change in the mine. The sampling for the month is 180 tons of lead ore. Tankerville, 5 to 5¼; Van, 32 to 34; East Van, 3½ to 4; Great Laxey, 21½ to 22½; North Laxey, 10s. to 12s.; Leadhills, 4¾ to 5; Llanwrst, 2¼ to 2½; Aberdaunant, ¼ to ½; Cargol, 2½ to 3; Court Grange, 1 to 1¼; Glyn, ¾ to ½; Ladywell, 17s. 6d. to 22s. 6d.; Pateley Bridge, 2¼ to 2½; West Pateley, 1¾ to 2¼. Pandora, 17s. 6d. to 22s. 6d.; this mine will sell 60 tons of lead on the 20th. South Roman Gravels, ½ to ⅝; West Chiverton, 13½ to 14½. West Tankerville, 15s. to 20s.; this mine has sampled 20 tons of blende. Gorsedd and Merllyn, 5 to 6; the sale of lead ore on Thur-day (50 tons) realised 69*l.* 5s. Great Holway, 5 to 5½; Pennant, 4½ to 5½. Glenroy, 15s. to 20s.; lead and blende appear to be coming into the shaft. Caron, 2½ to 2¾; Grosvinion, 3½ to 3¾; Red Rock, 1¾ to 2½; South Cwmystwith, 3 to 3½; St. Harmon, 2½ to 3; Wye Valley, 3 to 3½; West Wye Valley, 3 to 3½ cum div.

FOREIGN MINES.—Argentine, 2½ to 3; Blue Tent, 3 to 3½; Condor of Chili, 2½ to 3; Hultafall, 5½ to 6; Alnado, ½ to ¾; Chontales, 6 to 8s.; Don Pedro, ¾ to ½; Eberhardt and Aurora, 7 to 7½; Exequer, ½ to ¾; Flagstaff, 2 to 2½; Frontino and Bolivia, 3 to 3½; Javali, 6s. to 8s.; New Zealand Kapanga, 1½ to 1¾; Malpaso, ½ to ¾; Malabar, ⅛ to ¼; New Quebrada, 1¾ to 2¼; Port Phillip, 10s. to 12s. Richmond, 9 to 9½; the directors have declared a dividend of 7s. 6d. per share.

The Market for Mine Shares on the Stock Exchange was, during the earlier part of the week, in a highly animated and excited condition, and a considerable amount of business was done at large advances; but on Thursday and to-day a strong reaction set in, and prices appear to be rapidly returning to the prices of last week. That there was any valid reason for the advance cannot be pretended, as there had been no material improvement either in the produce or financial position of the mines in which the advance took place. It is to be noted, too, that the advances were almost exclusively in what may be called market mines—those in which prices are more affected by the speculations of the dealers among themselves than by the legitimate investments of the public—yet even this is an indication of an improved feeling as to the prospects. Carn Brea shares were run up enormously, and Dolcoath, Tincroft, Cook's Kitchen, Wheal Peevor, South Condurrow, Wheal Grenville, South Frances, and others, all profited by the mania, so that the comparatively heavy decline which has since taken place should cause so alarm to those who hold in the expectation of compensation from the profits of the mines rather than from the market operations in the shares. In Foreign mine shares the excitement, fluctuations, and reaction noticed with regard to British mines was likewise been observable, but the most important feature is the improvement in Richmond, chiefly owing to the very encouraging character as regards the position and prospects of the mine of the directors' circular. It is to be regretted, however, that the appeal to the Supreme Court of the United States, at Washington, has not been abandoned, as it is altogether unreasonable to expect, considering the clearness of the written law upon the subject and the imperative necessity of maintaining that law in the interest of miners generally, and even of the appellant company itself, that the appeal can be successful. The directors' circular states that all the necessary proceedings in connection with the appeal are completed but they are unable to say when the appeal may be expected to be heard. It is satisfactory to notice that "the legal and all other expenses of the suit up to the present time have been discharged;" but it would have been still more satisfactory if the directors had stated exactly what amount of dividend per share the shareholders have been deprived of by the law costs and time lost at the mine through the litigation. It has been seen in this country in the case of the West Basset and South Frances boundary dispute how the obstinate litigiousness of the executive of the former company, which, having worked into its neighbour's property, had a precisely similar grievance to that of the Richmond, sufficed to ruin both concerns; and although from the more distinct and practical character of the American law, similar ruin to the litigants is improbable, it will be instructive for the shareholders to calculate the cost of the litigation, so that when they next work beyond their vertical lines they may know how to avoid it.

Pestarena United, 4s. to 6s.; the whole of the debenture capital asked for has been subscribed, and the letters of allotment will shortly be issued. The total return of gold from both Val Toppa and Pestarena was 352 ozs. 16 dwts. 20 grs., from 606 metric tons of ore amalgamated. Frontino and Bolivia, 2¾ to 3¼; the last advices were accompanied by a remittance of gold, valued at 1953*l.*, the produce of the mines, and of the gold purchased at the mines for the month ending August 20. The profit amounted to 478*l.*, in addition to the monthly cost of 738*l.*, there has been expended 587*l.* on capital account. The ore taken from the lode in the Silencio Mine produced 70 ozs. of gold (10 ozs. to the ton), while that from the hanging-wall produced 10 ozs. The slow progress in Silencio, as far as productive work is concerned, is owing to the effects of the war. Large returns cannot be looked for until the levels are driven far enough to permit of rises being put up and stopes opened, and of sinking being resumed.

The latest advices from Mineral Hill state that superintendent Plummer is busy examining the English company's ground, and making ore assays from rock selected from various portions of the

mine. It is probable the property will be prospected by means of diamond drills, the superintendent holding to the idea that that method furnishes the most effectual and cheapest way of determining the position of the ore bodies supposed to exist in the hidden depths. The mine yielded immensely from the croppings down to a certain depth, but very little system was used, and the ground was honeycombed in every direction. The greatest depth attained was about 200 feet, when operations were suspended on account of dissensions among the shareholders. Capt. Plummer by reason of numerous experiments, and a careful geological survey, is satisfied that the hill contains many hidden bonanzas; this he has communicated to his company, and they have given him full power to proceed with such work as he may consider necessary. The "ghibriders" are very anxious to have the mill started up, and claim that in that event there are hundreds of tons of rock on the hill that can be utilised and worked at a profit both to the mill and the owners. This same rock is not of high enough grade to pay for shipment, and as a consequence is piled away on the dumps awaiting the commencement of operations at the mill. All the residents are very confident of the prosperity of the town, and predict good times in the near future.

Richmond, 9 to 9½; the usual weekly telegram from the mine at Eureka states the week's run to have been $70 000, from 1100 tons of ore, with the third furnace only. Smelting Richmond ore in part. The week's produce of the refinery was $35,000. The directors have declared a dividend of 7s. 6d. per share, and have issued a circular in which they state the furnaces were shut down on April 30, in consequence of the pending legal proceedings, until Sept. 5, when smelting operations were commenced with two furnaces, which have been running continuously, the result being the production of bullion of the gross value of $448,000, or 97,600*l.*, from 6950 tons of ore, being an average of $70·22, or 14*l.* per ton—a result never obtained at the Richmond Mine. Throughout the greater part of last year the produce was about $13 per ton. The bullion now produced weekly with two furnaces is nearly equal to last year's weekly production with five furnaces. There are less expenses and less fuel and labour required for rich ores, and the profit will be much greater. The mine reports are of the most assuring nature, and as large quantities of ore rich in gold and silver, with a large percentage of lead, are laid open in undisputed ground, the directors anticipate regular quarterly dividends. The refinery has turned out $215,000 of doré bars since Sept. 17. Three members of the committee appointed at the general meeting reached Eureka on Oct. 16. This morning a telegram was received, stating that a slight accident had occurred to the hoisting works, but it is added that there is no interruption to smelting, and that the mine is looking well. The manager reports (Oct. 16) that the new stope, west of No. 1, in the branch of the 400, is looking well. The ore they are extracting is of high grade. The 500 drift has been started south to come under the ore in the 400. The 800 winze is connected with the 900 main drift. The fissure is still well defined and regular. The furnaces are doing good work, and smelting average quantities of ore. In the course of another week they would start (it is now started) another furnace.

The "Sentinel" refers to the arrival of the London Committee as the event of the week, and states that the gentlemen have been very busy during the week pursuing their investigations, and we learn that they are very well pleased with the situation. They will report their conclusions to the stockholders after their return to London, and the report will, no doubt, be a very interesting document. Authentic information in regard to the precise condition of the mine is very difficult to obtain, as it is the policy of the company to withhold it from the knowledge of prying reporters, but we understand from reliable resources that the newly-discovered body of ore on the 5th level is proving to be a splendid deposit, rivaling in magnitude, although not as high a grade, the contents of the Pots chamber. There is ore enough in sight to run the three furnaces now in operation for an indefinite period of time. Since the termination of the lawsuit here, as noted in former reviews, vigorously prosecuted work in other portions of the ground not affected by the decision. At the time of the commencement of the suit they had the underground workings in splendid order for the economical extraction of the ore that has since fallen into the hands of the Eureka Company. Fortunately, without these magnificent reserves the Richmond is proving itself to be a grand old mine. The development of the bonanza on the 5th level still continues, and its proportions are as yet unknown, although enough is in sight to ensure a supply for the furnaces for a long time to come. This revival is visibly affecting the trade interests, both in the southern portion of town and the western slope of Ruby Hill, and they are assuming their former air of activity and prosperity.

Exchequer, ⅛ to ⅜; from the circumstance that the shares are said to have been in more request it is inferred that the accounts recently received from Mr. Henry Sewell are not altogether unsatisfactory. I.X.L., ⅛ to ⅜; there is nothing special from the mine this week. Eberhardt and Aurora, 60 to 7¼; the directors having asked for details as to strike in tunnel, mentioned in last week's Journal, and upon which the shares advanced in price, have to-day received telegram from Capt. Drake:—"The face tunnel struck quartz on Oct. 24, which continued 10 ft. Highest assay obtainable $6·28. Have not drifted; will commence 12th. Present indications simply favourable." Another telegram which was received at the beginning of the week announced that the mine is unchanged. The tunnel had been driven in 1200 feet, and is looking favourable. The cost for the month of November will amount to 3000*l.*, including taxes, 880*l.* The directors have received a further remittance of bar silver, valued at 2500*l.* Hultafall, 5½ to 6; the sinking of Maxfield's shaft is being pushed on with all possible dispatch. The lode continues to improve in depth. About half of the mineral that is raised is blende, with a little lead in it. The other half is reported as lead very rich and blende together, and with little or no gangue in the lode. The agent reports that he finds native silver in the junction between the lode and the country. Rapid progress is being made in the completion of the necessary buildings for the protection of the machinery.

Lead Mines have been firm. Van, 32 to 34; very good progress has been made in sinking Seaham's shaft, which is now down 8 fms. below the 105. The 90 and 105 west are improving. Other parts of the mine unchanged. The new halvan floors are just coming into operation, and the sampling this month has been increased by 50 tons of lead and 200 tons of blende from them. Grogwinion, 3¼ to 3⅜; the managers' monthly report states that the intermediate level and the 56 both continue to open out well on No. 4 lode, which is also expected to be cut by the 68 in a few days. No. 3 lode is yielding good ore in the deepest part of the workings—the deep adit and the 90. All the stopes throughout the mine are looking well, and yielding a full average quantity of ore. Wye Valley, 3 to 3½; the 46 is now being rapidly driven both east and west, and particularly towards the rich ground recently discovered in the West Wye Valley Mine. There has been an important improvement in the bottom of the 22 east, and a winze is now being sunk in it. The prospects altogether have very much improved. A parcel of lead is to be sold on Monday. Caron, 2¼ to 2⅜; the managers' report shows that no time has been lost in setting vigorously to work, and such progress has already been made with the new shaft that it is likely to be completed at the end of the present month. There has been a favourable improvement in the bottom level east, and it is yielding nice lead. Good progress is making towards the erection of machinery for dressing, &c. Saint Harmon, 2½ to 3; the 35 west is looking much better than for a long time past, and the stope has much improved. The south cross-cut continues to make capital progress, and a lode 4 ft. wide has been intersected, whilst other lodes are still ahead of greater importance. West Wye Valley, 3 to 3⅛, cum div.; Brookes' shaft is sinking in a lode valued at 2 tons per fathom. The 40 east and west are still making satisfactory progress. The manager estimates the pile of ore at surface to contain 60 tons of dressed lead, all produced from driving the levels and sinking the shafts, as not one fathom of ground has yet been stoped in the mine. South Cwmystwith, 3 to 4; all works reported to be making excellent progress. Red Rock, 1⅞ to 2⅛; the shaft is now sunk to the 72, at which depth a cross-cut is being driven towards the lode. The 10 east is yielding good ore, and the western adit has improved. A good parcel of lead will be sampled at the end of this month.

Pateley Bridge shares have improved, 2½ to 3; the report is this week considered unusually good. Rake vein east is carrying a rib of nearly solid metal 18 in. wide, and is worth 3 tons per fm. This level west is also improving, and a good course of ore is known to exist in advance of the present end. A telegram received just at the close of business announces that the Rake vein east has further improved, now worth 5 tons of lead ore per fathom—a splendid lode. West Pateley, 1⅞ to 2⅛; the mine has further improved at some of the most important points. Court Grange, 1 to 1¼; a further improvement has taken place in this mine; the lode being worth 25*l.* per fathom, and giving evidence of increased value. The reserves are valued at 23,000*l.*, and over 4000*l.* worth of ore is now broken ready for dressing.

Subjoined are the closing quotations:—

Assheton, ⅝ to ⅞; Carn Brea, 48 to 50; Devon Great Consols, 3¼ to 3⅛; Dolcoath, 37 to 39; East Caradon, 1½ to 1⅝; East Van, 3½ to 3¾; Glenroy, ¾ to 1; Great Laxey, 21½ to 22½; Hingston Down, ½ to ¾; Leadhills, 4¾ to 5¼; Marke Valley, ½ to ¾; Parys Mountain, ½ to ⅝; Pateley Bridge, 2½ to 3; Penstruthal, ¼ to ⅜; Roman Gravels, 7½ to 8; Rookhope, 21s to 23s.; Tankerville, 4¾ to 5; Tincroft, 16 to 18; Van, 31½ to 32½; West Assheton, ½ to ¾; West Chiverton, 13 to 15; West Pateley, 1¾ to 2¼; West Tankerville, ¾ to ⅞; Wheal Grenville, 3½ to 4; Almada and Tirito, 3-16ths to 5-16ths; Argentine, 2½ to 3; Birdseye Creek, 9-16ths to 11-16ths; Blue Tent, 3 to 3¼; Cape Copper, 34½ to 35½; Cedar Creek, ¼ to ½; Chontales, ¼ to ½; Colorado Terrible, 1½ to 2; Condes of Chili, 2½ to 3; Don Pedro, ⅜ to ½; Eberhardt and Aurora, 6¾ to 7¼; Exchequer, 4s. to 6s.; I.X.L., 4s. to 6s.; Flagstaff, 2½ to 2⅝; Frontino and Bolivia, 2⅞ to 3⅛; Hultafall, 5½ to 6; Javali, 5s. to 7s. 6d; Kapanga, 1¼ to 1⅝; Last Chance, ⅝ to ⅞; New Quebrada, 1⅞ to 2⅛; Pestarena, 3-16ths to 5-16ths; Plumas Eureka, 2⅝ to 2⅞; Port Phillip, 10s. to 11s.; Richmond Consolidated, 9 to 9⅛; St. John del Rey, 330 to 335; San Pedro, ½ to ¾; Sierra Buttes, 1½ to 1¾; South Aurora, 5s. to 7s.; Tecoma, 4s. to 6s.; United Mexican, 1½ to 1¾; Oregon pref., 4 to 4¼.

COLLIERIES.—Another quiet week ends with no appreciable change in either the prices of the shares or the quotations in the coal market. In some districts, however, business shows some signs of improvement, notably in Staffordshire, where the leading iron firms are receiving more and better orders than for some time past. In South Wales a fair supply of fresh orders is being received, and the export trade is improving. A scheme which will be brought before next Parliament to connect Newport with the Rhondda Valley will, if carried out, give a great impetus to the trade of that port, and, concurrently with the promulgation of this scheme, we hear of the proposed re-working of some very valuable coal and iron works, which, if their late proprietors had been wise, would never have been allowed to stop. The Barnsley seam of coal has been won at the Monckton Main Colliery by means of shafts 17 ft. in diameter and 477 yards deep. It is expected that the output, when in full working order, will be about 1600 tons per day. The new pit at Chapel House is about 325 yards down, and is sinking with great rapidity. The beds and house for the new engine are progressing very favourably, and trade continues very brisk, while the profits now being made augur well for the prosperity of the company. There are plenty of enquiries for the shares, which are quoted 3 to 3½. Altami shares close at 4 to 5; important progress is reported here, and the future prospects seem bright. The Ebay Hall Company is making a good profit from the manufacture of clay goods at present; the shares are at 8 to 10. Mold Argoed are quoted 2 to 3; Bolckow, Vaughan, 83¾ to 84½; Thorp's Gawber, 2¼ to 3¾; New Sharlstone, 3¼ to 3¾; Cakemoor, 2 to 2½; Newport Abercarn, 4 to 4½; Cardiff and Swansea, 1 to 1½.

At the Swansea Ticketing, on Tuesday, 2180 tons of copper ore were sold, realising 8901*l.* 13s. 6d. The particulars of the sale were—Average standard for 9 per cent. produce, 82*l.* 18s. 7d.; average produce, 7½; average price per ton, 4*l.* 1s. 8d.; quantity of fine copper, 158 tons 2½ cwts. The following are the particulars of the two last sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Oct. 16.....	3742 ...	£82 8 4 ...	6½ ...	£3 13 0 ...	11s. 0d. ...	£55 5 6
Nov. 6.....	2180 ...	82 18 7 ...	7¼ ...	4 1 8 ...	11 3 ...	56 6 0

Compared with the last sale, the advance has been in the standard 10s., and in the price per ton of ore about 9d. The Betts Cove ore, of produce 9¼, realised 11s. 2⅜d. per unit; Union produce, 5⅜, per unit, 11s. 0½d.; Aljustrel, produce 5, per unit 10s. 1½d.; Cavera, produce 6⅜, per unit 11s. 2½d.; New Quebrada, produce 6¼, per unit 11s. 0⅜d. On Nov. 20 there will be offered for sale 2059 tons from Betts Cove, Cavera, Aljustrel, Union, Constantine, Algiers, and elsewhere.

The BICTON CONSOLS SILVER LEAD MINING COMPANY, with a capital of 20,000*l.*, in shares of 1*l.* each, has been formed to purchase, for 2000*l.* in fully paid shares, and develope a property of the same name held for 21 years, at 20*l.* dead rent, merging into 1-20th dues, and situate in St. Eve, Cornwall, nearly north of the celebrated silver-lead mines of Menheniot and St. Eve, which have proved very profitable, while west are the Caradon, and on the east Holmbush, Redmoor, Wheal Newton, and other mines, which have proved very productive; many of them are now making large returns, and paying dividends. Several lodes traverse the sett, and the principal has been opened on in various places for nearly one mile in extent. This is a north and south lode, producing on its back a very rich silver-lead gossan, not surpassed in the county. It varies from 3½ to 5 ft. wide, and several pits have recently been sunk to depths of 8 to 18 ft.; in these the gossan can be broken by intending investors visiting the mine, and the vendor invites personal inspection. Captain George Spargo, C.M.E., of Callington, has carefully inspected the property; and, in concluding a long report, states that there appears to be ample water, available as motive power, for hauling, crushing, dressing, and so on. This adds considerably to the intrinsic value of the property. The distance of transit of materials and minerals is comparatively easy, about three miles from the terminus of two mineral railways, with good roads. The first step he would suggest being done is to pit the property throughout, which will enable them to discover all the lodes existing therein, thus rendering an index as to all future operations. He considers that 50*l.* to 100*l.*, economically applied, will put them in possession of facts such as to enable them to decide with safety where to commence their permanent shafts, &c. In conclusion, after looking at the natural as well as the geological position of this property, with the many lodes existing therein, some of which yield mineral at not more than 8 ft. from surface, with the invaluable advantage there is for the easy and speedy development of the same, he has no hesitation in stating that with a fair amount of capital judiciously spent they will be in possession of a highly remunerative property.

The offer of the Northfield Iron and Tyre Company (Limited), of Rotherham, for the settlement of their affairs by a composition of 10s. in 1*l.* has been refused by the creditors, and the concern will shortly be wound up in liquidation.

A general meeting of the Valencia Slate Slab Company (Limited), has been convened by the liquidators for the 5th prox., when a statement will be made showing the manner in which the winding up of the undertaking has been conducted, and the property of the company disposed of.

*** With this week's Journal a SUPPLEMENTAL SHEET is given, which contains: Original Correspondence: Our Commerce in the Superior Metals; Dynamite and Cotton Powder; Prevention of Colliery Accidents; the Mine Danger Indicator (H. Reece); Colliery Explosions, their Cause and Cure; the Barometer, and Colliery Explosions; Government Inspectors of Mines, and Colliery Explosions; Colliery Accidents, and their Prevention; Improved Process in Getting Coal (W. Wardle); the "Reliance" Air Compressor; the Tin Market, and its Prospects (W. Tregay); Lead Mining and Smelting: Calculating the Values of Lead and Zinc Ores; New Caledonia, and its Mines; the Exchequer Gold Mine; Flagstaff Mine (F. W. Snell); Richmond Mining Company; Mining in Montgomeryshire; Esgair Hir and Esgair Fraith Mines; Dynin Slate Quarries (Richardson and Co.); Manganiferous Ores of Devon; Cathedral Mine; Penstruthal Mine; Joint-Stock Banks, and British Mines (R. Tredinnick); Slate Quarrying in Cardiganshire; a Visit to the Celebrated Combmartin Mines; Registration of New Companies; a Rich Silver Mine; the Scotch Mining Share Market; Getting Coal without Gunpowder; New and Economic Pump; Patent Matters; Meetings of United Mexican, Lanestoss, Frontino and Bolivia, West Godolphin, Wheal Grenville, Great West Van, &c.

GREAT HOLWAY.—Roskell's shaft is 80 yards deep, and the former proprietors sank on the hanging side of the vein. At this depth it is important to notice that the chert appears. Now, it was in similar ground to this that Milwr, Trelogan, and other great mines of the district made such wonderful deposits. At Great Holway the chert is from 20 to 40 yards thick. The general impression is that the operations to be conducted at Roskell's shaft will soon open great deposits of ore.

SOUTH TOLCARNE.—Improvement is taking place at the copper lode.

TOLGUS CONSOLS.—In sinking the sump below the 25 the lode is becoming compact, and yields some rich yellow copper ore. The agent is confident of early great success.

NORTH CORNWALL.—Reports of a most satisfactory character have been received from this property, and they will appear in next week's Journal. It is confidently expressed that this undertaking will prove to be of a very remunerative description, and energetic working will be the result of the expectations which have been formed.

PATELEY BRIDGE (Lead).—Telegram: The following telegraphic message was received yesterday (Friday afternoon) before the close of business:—"The Rake Vein has further improved, now worth 5 tons of lead ore per fathom—a splendid lode."

WEST PATELEY (Lead).—These shares have been in improved demand since the announcement in the earlier part of the week that a further important discovery had been made at the bottom of the No. 2 shaft; this lode has been proved from the 10 to the 20, and valued at from 1 to 3 tons of lead per fathom for the entire depth; levels have been commenced at the 20, where the lode is 4 ft. wide, worth nearly 1½ ton per fathom. The Craven cross-vein in the 56 fm. level continues to improve as the end approaches the rich ore body said to have gone down in the old workings; the manager reports that the level has been driven for the last 10 fms. through a continuous course of ore worth 15*l.* per fathom; as this end approaches the perpendicular of the old workings the water flows freely from the roof, indicating the proximity of the ore body. In the 10 fm. level at Discovery shaft the lode is 2 ft. wide, producing good saving work for dressing. At No. 1 shaft the lode in the 10 east is 2½ ft. wide, producing saving work for dressing of good quality. On surface grating and dressing are carried on as fast as the weather will permit.

THE LAST CHANCE SILVER MINING COMPANY.—The Fifteen Per Cent. Debentures of this company, amounting to 10,000*l.*, in bonds of 10*l.* each, payable in three instalments, are being well taken up by the shareholders, a large number having been already subscribed. It will be observed by an advertisement elsewhere that the list of applications will close on Monday next, the 12th instant. Any bonds unapplied for on that date will be available to applicants who are not shareholders, and will be allotted according to priority of application. The security is undoubted, it being a first absolute charge on the property of the company, and there is enough ore now in sight, the profits on which will more than cover the total amount of the bonds, principal as well as interest, leaving besides large profits.

THE "BONANZA" COMSTOCK MINES.—During the week ending Oct. 15 there were hoisted from the "bonanza" mines 9240 tons of ore. Of this 5584½ were from the California and 3385½ from the Consolidated Virginia. During the same period 9073 tons were shipped to the mills. The California Mine paid its 17th consecutive monthly dividend on Sept. 21, aggregating $18,360 000 (3,700,000*l.*) The Consolidated Virginia has paid 37 dividends, aggregating $32,400,000 (6,480,000*l.*)

ZINC ORES.

ARMAND FALLIZE,
INGENIEUR-CIVIL, A LIEGE (BELGIUM
BUYER
1.—CARBONATED AND OXYDED ZINC ORES (CALAMINE, &c
2.—ZINC AND LEAD ORES MIXED TOGETHER, BUT DRESSABLE KINDS ONLY

CAPPER PASS AND SON, BRISTOL
PURCHASERS OF
LEAD ASHES, LEAD SLAGS, SULPHATE OF LEAD, HARD LEAD, BRASS SLAGS AND ASHES, COPPER REGULUS, MATTE, SCORIA, TIN ASHES, TERNE ASHES, &c., and MIXED ORES or REFUSE, containing LEAD, COPPER, TIN, or ANTIMONY.

ORE DRESSING.

MR. T. CURRIE GREGORY, C.E., F.G.S,
AND MINING ENGINEER,
OF 4, WEST REGENT STREET, GLASGOW,
AND 52, QUEEN VICTORIA STREET, LONDON,
May be personally consulted in LONDON on all matters connected with Ore Dressing and Rock Drills, to which he has for years paid special attention.
Estimates given, and all kinds of Machinery supplied.
REPORTS AND SURVEYS OF ALL MINING PROPERTIES MADE.

THE RISE IN TIN SHARES AND INVESTMENTS GENERALLY.
MR. JOHN B. REYNOLDS should be consulted as to the PRESENT and FUTURE PROSPECTS of the TIN TRADE. All communications considered as strictly private. Reliable advice given on all investments. Telegrams promptly attended to.
NORTH CORNWALL, AND NEW TINCROFT.—Mr. REYNOLDS is a Buyer of any number of shares herein. Full particulars on application.

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MR. W. MARLBOROUGH, STOCK AND SHARE DEALER, 29, BISHOPSGATE STREET, LONDON, E.C. (Established 21 Years), can sell the following SHARES, at prices annexed:—

50 Almada, 6s. 3d.	30 Gorsedd and Merllyn, £5 6s. 3d.	50 Parys Mount., 11s. 3d
10 Argentine, £2 12s.	20 Glenroy, 16s. 6d.	40 Penstruthal, 6s. 6d.
100 Aberdaunant.	20 Hultafall, £5.	75 Port Phillip, 10s. 6d.
20 Altami.	30 Last Chance, 10s.	25 Rookhope, £1 3s. 9d.
15 Bampfylde, £8.	20 Llanrwst.	15 Richmond, £9 5s.
50 Bodidris, £1 2s. 6d.	20 Leadhills, £5	10 Roman Grav., £8.
50 Combmartin, 6s.	20 N. Quebrada, £2 5s.	50 S. Roman Grav., 9s.
25 Colorado, £1 17s.	30 Nth. Laxey, 11s 6d.	20 Santa Barbara, £1 16
60 Chontales, 7s. 6d.	25 New Zealand Kap., £1 7s. 6d.	15 Tankerville, £5 3s. 9d
20 Chicago, £2 10s.		100 Tecoma, 6s. 6d.
20 Don Pedro, 9s.		30 Van Consols, 8s. 9d.
25 East Lovell, £1 10s.	25 Marke Valley, 15s.	10 W. Craven Moor, £8
10 East Van, £3 10s.	3 Minera, £18.	15 W. Wye Valley.
20 Devon Consols, £2 15s	30 Monydd Gorddu.	30 West Pateley Bridge, £1 12s.
20 Derwent, £2 3s. 9d.	15 Pennant, £5.	
10 Eberhardt, £7 5s.	10 Pestarena, 5s. 6d.	40 W. Tankerville, 16s 6d
25 East Caradon, £1 5s.	40 Prince of Wales, 7s. 6d	40 W. Goolphin, £1 16s.
50 Exchequer, 6s.	30 Pandora, 17s. 6d.	call paid.
40 Frontino, £3 3s. 9d.	50 Plynlimmon, 3s. 6d.	20 Yorke Peninsula, 5s.
30 Flagstaff, £2 8s. 9d.	10 Pateley Bridge, £2. 2 6	

Shares bought and sold at net prices. Telegrams promptly attended to.

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VAN LEAD MINE.—Particulars of this very valuable Mine will be found in the SIXTH EDITION of Mr. MURCHISON'S work on BRITISH LEAD MINES, published THIS DAY, with Maps, &c., price 2s. 6d. The Prefaces to the Six Editions price 1s.
8, AUSTINFRIARS, LONDON.

TANKERVILLE.	ROOKHOPE.
ROMAN GRAVELS.	NORTH LAXEY.
GREAT LAXEY.	GLENROY.
MINERA.	WEST TANKERVILLE.
LEADHILLS.	PANDORA.
DERWENT.	

Full particulars of the above and other valuable LEAD MINES will be found in the SIXTH EDITION of Mr MURCHISON'S work on BRITISH LEAD MINES, published THIS DAY, with Maps, &c., 2s. 6d. The Prefaces to the Six Editions, 1s.
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"Contains a good deal of information that may be useful at present. Mr. Murchison's theory is briefly that on the average British Lead Mines have less of the lottery element in them than any others, and the figures he gives seem to support that view; at all events, those interested in this industry will find his facts and observations worth reading."—*Times.*
"Calculated to be a great benefit to investors."—*Mining Journal.*
"We have great pleasure in recommending his treatise."—*Morning Post.*
"We invite capitalists to look into this means of investment."—*Money Market Review.*

Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt; it then forms an accumulating useful work of reference.

ARGENTIFEROUS COPPER ORES.—Can any correspondent inform me, through the columns of the *Mining Journal*, whether it would be possible to have for a period of several years regular supplies of argentiferous copper ores? These ores are called grey argentiferous copper—that is to say, containing brimstone, copper, and antimony or arsenic as constitutive elements, and, besides that, a quantity more or less considerable of silver. Doubtless, you have among your numerous correspondents an engineer who could inform me if that sort of mineral can be found either in America or in Europe, and who, in indicating the places from which one could have regular and permanent supplies of these ores, would tell me their contents in copper and silver. I should be satisfied with grey copper containing from 3 to 5 per cent. of copper, and 70 grammes of silver per each ton.—G.: *Paris*.

SHARE QUOTATIONS—"A." (The Hague).—The fractions mean fractions of 1*l.* sterling, and not percentages of the par value of the shares; therefore, there is no discrepancy in the pair of quotations referred to—5s. to 7s. in one page, and ¼ to ¾ in another. There are 20s. in 1*l.* sterling.

THE SUPPLEMENTARY SHEET.—We have received occasional complaints, and of late a good many, that the Journal is delivered by country booksellers without the Supplement. Subscribers would oblige us by demanding that the paper should be handed to them complete, as every Journal is accompanied by the Supplement when it leaves our office, and the fault of omission must rest with the country bookseller or their London agent.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

Received,—"N. B." (York)—"R. J. M."—"Constant Reader" (Liége)—"Shareholder" (Richmond) can ascertain all that he seems to desire on application to the Secretary—"X. Z": Many thanks for this courtesy—"Mendips"—"B. R." (Edinburgh): We shall be glad to have the particulars—"Shareholder" (Wheal Uny)—"Stannum" (Penzance): We could not publish such a letter without the writer's name being attached—"Miner" (Dudley): They will not be published in any other form—"Shareholder" (Penstruthal): Read the letters already published in the Journal.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, NOVEMBER 10, 1877.

PREVENTION OF COLLIERY EXPLOSIONS.

As is generally the case after the occurrence of a serious mining catastrophe like that at Blantyre, where a large number of lives have been lost, many suggestions and ways are volunteered, through the medium of the Press, by which, in the opinion of the writers, explosions in collieries might be prevented. Were this possible no persons we believe would more fully rejoice than the owners and managers of mines, who would then be relieved of the most serious responsibility that rests upon them. Unfortunately, however, those who indulge in such speculations—for they are no better—from the most philanthropic motives, no doubt, as a rule, are unacquainted with the practical details relating to underground operations in collieries, for the oldest and ablest of our mining engineers state that at times discharges of gas come off in mines so suddenly, and to such an extent, as to completely overpower the ventilation, be it ever so good. Still in many districts gas in considerable quantities is known to ooze out when the coal is brought down, and where such is the case the ventilation at all times and seasons should be full and efficient, the workings constantly examined by properly qualified persons specially appointed for the purpose, powder should not be used, and only the very best safety-lamps allowed to be taken by the men. With regard to lamps, the importance of which cannot be overestimated, the Stephenson in the most dangerous atmosphere appears to be about the safest. On the occasion of the Lund Hill explosion in South Yorkshire, in 1857, when 189 lives were lost, it appears that as the current of air carried the gas past the workmen in some of the banks their Stephenson safety-lamps were extinguished, whilst a small number of men were supplied with Davy lamps which were filled with flame when the others went out. During the present year also one of the best known collieries in the West Riding, where there was a terrible explosion, have only used the Stephenson lamps, and on more than one occasion the men have had timely warning of danger by the lamps going out. When the conditions we have enumerated are carried out fully it would seem that managers can do no more to prevent explosions. But there is another side which in the discussion as to the causes of gas in mines igniting is almost entirely overlooked. Whilst fault is found with owners and managers, scarcely any mention is made as to the recklessness of some of the men who tamper with the lamps that should be the indicators of danger, for the purpose of getting a slight increase of light, or of those who take down matches, pipes, and tobacco to indulge in the luxury of a smoke. That in all probability has led to the loss of many colliers whilst engaged in other and distant parts of a mine, as well as the perpetrators of the act.

Assuming, then, that with good ventilation, and the strict carrying out of the rules, and dispensing with all dangerous appliances such as powder and open lights, ordinary accumulations of gas can be dispersed without injury to anyone, yet, as we have before stated, outbursts of gas have taken place, and no doubt will do so again, that make the best ventilation powerless. In some parts of Yorkshire there have been tremendous outbursts of gas from the floor with fearful force. At the Oaks not so very long since there was a sudden discharge of gas from the floor, causing a large fracture, in a district where the ventilation had always kept the various places thoroughly clear from gas. Without the least warning a body of return air from the district, measuring 10,000 cubic feet per minute, became so charged with fire damp that after travelling 600 yards, and even afterwards mixing with four more currents of return air equal to 140,000 cubic feet per minute, was still foul and impregnated to such an extent as to extinguish the safety-lamps. In the same district the Silkstone seam gives off a good deal of gas, and from one colliery in particular it has on several occasions burst from the floor, putting out the Stephenson lamps, and rendering the men insensible, so that had there been a common lamp in the locality every man in the place would have been killed. In such instances the men may be said to be working on the top of a volcano, that may burst out at any moment and overwhelm hundreds within its reach. But this to some extent is averted by the use of safety-lamps of the very best description, and by making a safety-valve by boring through to where the gas actually is, and drawing it off by means of a pipe. Our object, however, in drawing attention to these sudden discharges of gas is to show that they take place to a dangerous extent in pits where the ventilation is exceptionally good. It has been said that in some collieries where explosions have taken place the system of working carried out was wrong, but it should be remembered that the safety of all persons working in collieries depended more upon strict discipline and the prudence and forethought of both men and officials than on anything else. Those in charge of a colliery should also be the best judges as to what system is most suitable, for what might be well adapted for one place would be just the reverse for another.

That it is impossible to anticipate or to so ventilate a colliery as to prevent an explosion of gas in all collieries is admitted by our leading mining engineers, and was admitted to us a few days ago by the most eminent mining engineer in Yorkshire at least—Mr T. W. EMBLETON, the president of the Midland Institute of Mining Engineers. He illustrated his statement by an instance within his own experience at the Higham Colliery, near Barnsley, where it was found necessary to make two returns to the upcast shaft, the bottom of which was surrounded by old workings, one return having to pass into the shaft at a higher elevation than the other. To effect this blasting was resorted to, and in firing one shot in particular the roof began to crack as if the whole place were closing in. A quantity of gas came out, and on examining the place next morning he found the bricks in the side wall crushed, and he could get two of his fingers between the roof and the top of the wall, showing that the strata that had been removed by the shot had reduced the pressure so much that the gas came out. Not a single fracture could be seen in the roof, which was quite sound. This shows that when the pressure is removed the gas will come out. Mr. EMBLETON further stated that many of these great explosions of which they knew, and perhaps all, because we have no account of them, happen under ordinary circumstances—"a discharge of gas which comes off suddenly, and which no amount of ventilation can carry away."

But we are told that there are means by which all explosions in collieries can be prevented, although such a view is directly opposite to that held by our most eminent mining engineers. In last week's Journal we inserted a letter from Lord KINNAIRD to Mr. MACDONALD, strongly recommending the compulsory adoption of Mr. ANSELL'S Fire Damp Indicator, which he believes had it been placed in the colliery at Blantyre "that sad disaster might not have occurred." The great interest the noble lord has always taken in every measure calculated to give increased safety to the colliers we feel sure is appreciated by all persons interested in our coal mines, but at the same time it must be said that the views of his lordship are not shared in with respect to the indicator by our mining engineers or colliery managers. His lordship states that the instrument was exhibited before Members of the House of Commons "with a most satisfactory result." This, no doubt, is perfectly correct, but the atmosphere of the House of Commons and the members of it are certainly not such as would be taken by mining engineers as sufficiently valuable guides as to what is necessary for detecting gas in collieries, so as to prevent its accumulation to such an extent as to lead to an explosion. The indicator has been tried at the Oaks and other collieries, but the managers do not recognise its value, otherwise they would only be too glad to have an additional safeguard with respect to the finding of gas. That they are justified in so doing is shown by the evidence given by Mr. ANSELL himself before the Select Committee on Mines. He said that unless the gas came to the instrument it would not give notice of it. The gas might be 50 yards off of which the instrument would tell you nothing. Mr. ANSELL further stated that the wires of his instrument he purposed should be carried along the roof "in the same way as in the mines in Northumberland and the Northern Counties, where they have a wire-rope carried along in a similar manner to that on the old Blackwall Railway." Now, it appears that the indicator, like a safety-lamp, gives indications of gas when it reaches it, but before it has done that it may have accumulated to a very large extent, and coming in contact with a light have caused an explosion and loss of life. No person, therefore, at all acquainted with mining and colliery operations will be surprised to find that Mr. ANSELL'S sensitive and interesting piece of mechanism has made no progress, or has found its way into our mines. It is, no doubt, well adapted for exhibition, as showing that it performs the duty expected of it when gas is taken to it, but for all really practical purposes for the actual prevention of explosions of gas in mines it is as yet in every way incapable and imperfect, and this is the reason why it has not been taken to by our colliery managers. All, therefore, that can be done is to adopt the various safeguards that we know will prevent so far as possible accidents resulting in the loss of life in our collieries. By relying on them the most good will be effected, for we believe with the late eminent expert, Mr. J. KENYON BLACKWELL, that, as with the most careful and judicious management it is impossible to prevent all accidents from explosions in deep, fiery mines, it is necessary to limit their effects in the pits in which they occur.

COLLIERY ACCIDENT FUNDS.

It is certainly in no way creditable to those who assume to be the great friends and leaders of the working miners to find them constantly pointing out the wrongs which that class suffers at the hands of wealthy and avaricious employers, but never taking any steps to make provision for their wives and families when overtaken by those sudden calamities to which workers in mines are liable. The consequence is that when a number of men are killed, those who have lost their bread winners are obliged to trust for support on the donations of the charitable, more particularly of that portion who have been denounced as the enemies of the men, for the maintenance of whose wives and little ones they have always been the most liberal contributors. This has evidently been the case at Blantyre, for we do not hear of there being any fund on which the bereaved can make any claim, so that an appeal has to go forth asking for aid from those who have been spoken of as being anything but the working man's friends. The man who earns a daily wage just now as much as he can do to support himself and his family, whilst the noisy demagogue is a general receiver, and knows no charity, so that no matter what his position may be his motto is "to give nothing to nobody," forgetting all past favours, and leaving to wealthy employers the task of relieving the distress of those families who have been left destitute by a sudden calamity for which provision should have been made in life. At Blantyre we had a most striking example of this state of things; a few days after the explosion took place Mr. MACDONALD visited the colliery, where he addressed a number of the miners, denouncing in the strongest terms the owners of the colliery, and in which the word murder was more than once used. Mr. MACDONALD, however, before leaving the scene of the sad event did not, so far as we are aware of, offer any substantial consolation to the widows and children of those who, we have not the slightest hesitation in saying, frequently gave of their means to him. He, however, gave of what he has ever been a liberal contributor, a great deal of talk of that description which is well calculated to lead to a bad feeling between master and man, and which cost him nothing. Whilst he was so engaged in this patriotic work, the managing owner, whom he accused of so much, answered that he had on the part of the firm headed the subscription list for the relief of the sufferers with 1000*l.* As to which was the most Samaritan like act we leave the friends and admirers of the Member for Stafford to judge.

The time, however, appears to us to be most opportune for drawing the attention of the miners and their employers to the necessity there is in all our colliery districts for the formation of associations to meet such contingencies as those that have arisen in connection with the Blantyre explosion, so as to render appeals to the public unnecessary. In several localities permanent relief funds have been successfully established, the rules of which can be easily and readily adapted to the requirements of any mining body. A few years since at the Staveley Works, near Chesterfield, the managing director—Mr. C. MARKHAM—introduced a scheme which has since been successfully carried out, the company contributing upwards of 500*l.* a year. Provision is made for the sick, for those who are either temporarily or permanently disabled, or for the widows and orphans. During the ten years the association has been in existence the contribution of the members to the Sick Fund has been 28,494*l.*, and the payments 28,568*l.* The total contributions of the Staveley Company during the same period has been 5886*l.* To the Accident Fund, which is apart from that relating to sickness, the workmen have paid 15,558*l.*, whilst the disbursements have been not less than 18,400*l.* That the large sums expended at Staveley have been the means of relieving a vast amount of suffering and distress there cannot be two opinions, whilst the liberality shown by the company cannot, one would think, but be appreciated by the workmen to the extent of binding them more closely to the interests of those who have shown in so many ways their great desire to benefit in every possible manner the social and moral improvement, not only of those they employ, but their families as well. That the funds at Staveley have been the means of keeping a man from the workhouse or from trying to eke out an existence on poor-law pay. We can state that some of the members who have been permanently disabled have received a grant of as much as 100*l.*, by which they have been able to start in a way of business that has made them comparatively independent. But the Staveley miners, it may be said, do not belong to any Union with respect to trade, and their position will contrast most favourably with any similar body in the kingdom. The company have built schools for their children, aided in raising different places of worship, provided reading rooms and libraries, and building plots of land for such of them as desire to live in their own houses, as well as many other advantages, at a cost, it is said, of no less than 30,000*l.*

In Durham and Northumberland an Association for the relief of miners in sickness, those suffering in consequence of accidents, and for the widows and children of those members who may die from ordinary causes, or from accidents, has been in operation for more than 15 years. It numbers upwards of 70,000 members, having 300 branches, and an income of about 50,000*l.* a-year, with a funded balance of 60,000*l.* At the present time it fully supports 350 widows, 650 orphans, 750 old men, and 170 men who were permanently disabled, and in the second quarter of the present year it gave relief to 2750 persons who had been disabled during that time. This glorious result is due to the combination of the men alone, and the keeping the fund apart from all control on the part of those who are connected with the Miners' Association, which has for its object trade matters, and payments for strikes and dispute arrangements. Indeed, it has been found that in few instances do the ordinary trade and sick and accident funds when worked together act satisfactorily, and a striking instance we had of this in the case of the South Yorkshire Miners' Association. Connected with it there was a widows' and orphans' fund, but the capital was expended in the purchase of a colliery, which failed, and in the payments of men on strike, so that the claims of the unfortunate women and children were ultimately repudiated. During the present year, however, a permanent relief fund for the miners in the West Riding and North Derbyshire has been established on a different basis, being entirely free from all trade associations. It already numbers several thousands members, and has received between 2000*l.* and 3000*l.* as part of the surplus of the Hartley Fund sent to Yorkshire, whilst it is probable that from 12,000*l.* to 15,000*l.* more will be handed over to it as the surplus of Oaks Colliery Explosion Fund. Such societies not only prevent persons from becoming permanent paupers, or for seeking charitable relief from the wealthy and benevolent, but also lead to habits of thrift in a class more than others liable to have their power of providing for themselves and families suddenly arrested by accident. Scotland for years past has been noted for its mining leaders and speakers, yet we find that, as at Blantyre, there has been no society established for the relief of sufferers by accidents, whilst so much has been said about the oppression of employers. The reason we suppose is that the latter pays better than the other, for if what was paid to agents and agitators was given to a relief fund there would be no need of begging for the unfortunates connected with the most recent of our terrible colliery catastrophes. It is, however, to be hoped that the lesson will not be altogether lost, and that in those districts, not only in Scotland, but in other parts of the United Kingdom, where there are no provident funds that they will be at once established. Those already in existence, and that have done so much good, have been well and warmly supported by the colliery owners, as no doubt those will be that may now be formed, despite the efforts of well-paid demagogues to do all in their power to hold up the employer as the enemy of the workman.

IRON IN ENGLAND AND FRANCE.

We do not wish to "pile up the agony"—as the Americans say—but we believe there is no denying the rather awkward fact that the British iron trade is in a very moderate condition indeed. With pig-iron selling at 40s. per ton one would fancy that we should witness a confirmation of the generally accredited axiom that cheapness has a decided tendency to stimulate consumption; but however true this axiom may be upon general grounds, it certainly does not apply at present to our iron trade. We have just remarked that pig is selling at 40s. per ton; but, notwithstanding this, the list of furnaces out of blast is just now a terribly long one. In Scotland, for instance, out of 157 blast-furnaces only 88 are working. In the Cumberland and Furness districts only 45 furnaces are in operation out of 67 in existence, and South Staffordshire can only muster 48 active blast-furnaces out of the 149 which are to be found within the limits of the district. In South Wales, again, at least half the furnaces are out of blast. Need we go further? Have we not given abundant proof of the fact that the British iron trade is at present in a very bad way?

While the statistics available with respect to the metallurgical industry of Great Britain present a sombre aspect those relating to the French iron trade have been comparatively cheerful. Thus we find that 763,873 tons of pig-iron were made in France in the first half of 1877, as compared with 711,643 tons in the corresponding period of 1876; wrought-iron was also made in the first half of the year to the extent of 375,146 tons, as compared with 365,754 tons in the corresponding period of 1876; sheet-iron to the extent of 63,314 tons, against 59,351 tons; and steel of all kinds to the extent of 231,178 tons, against 233,837 tons. The large consumption of iron involved by the Exhibition building, which now covers the Champ de Mars, at Paris, has had something to do with the results indicated by these figures, but still we can but think that the French iron trade has presented more stability and strength than our own during the past year. It has not the magnitude which the British iron trade still possesses; but it has, nevertheless, held its own during a period of great commercial trial and difficulty.

Why has this result been witnessed? Because in spite of the fickleness, frivolity, and exciteability, the French possess many virtues which are lacking, we fear, in the English working man. Far be it for us to assume that the English working man is not a good fellow in the main. He does a great deal of work, and he has produced in the past a vast amount of wealth for the country. But still he is thriftless, thoughtless, and not sufficiently temperate; he is also sadly in the dark as to the inflexible immutable laws, which whether he likes it or not, regulate—and must continue to regulate—the relations of capital and labour. The French workman may fight on the barricades one day, but he is making an investment the next. The French are emphatically a nation of small investors, and there is probably scarcely a humble family in France the members of which do not know that money saved means future interest produced, and that the future interest thus produced will bring many comforts with it, and even the means of subsistence should the day become rainy. The French, too, are, as a general rule, temperate, and it is this national temperance which has enabled them to overcome so many national troubles. The French had more or less formidable internal convulsions in 1830, in 1848, in 1849, in 1851, and in 1871, to say nothing of a terrible foreign war in 1870. Yet ever since 1830 they have been saving money and accumulating capital to such an extent that it has overflowed into neighbouring countries. Would it not be well if the English working man saved a little more and drank a little less?

THE BLANTYRE DISASTER INQUIRY.—The Home Secretary has appointed Mr. Robert Maclean, advocate, Edinburgh, and Mr. Joseph Dickinson, one of Her Majesty's Inspectors of Mines, to be Commissioners to inquire into the cause of the recent explosion at the Blantyre Collieries, and to report the result of the inquiry to him. The inquiry will in all probability commence at Hamilton on Monday the 12th instant.

COAL AND IRON IN THE UNITED STATES.—During the last few days or a fortnight, of which detailed advices have been received, 45,000 tons of steel rails changed hands upon the Philadelphia market. Quotations have ranged at about $40 to $42 per ton currency at the mills. The demand for iron rails has ruled dull in Philadelphia, and only a few small lots have been sold. The competition prevailing among manufacturers of steel rails has exerted a somewhat depressing influence upon the iron rail trade. A firmer feeling noticed recently at Philadelphia as regards old rails still continues, and sales have been made at full prices. The market may be reported steady and firm at $19 to $20 per ton currency, according to terms of payment and quality. A moderately active business has been passing at Philadelphia in plate and tank iron, but no extensive operations have been entered into for some time past. There has been little change to report in bar-iron; business has been dull and unsatisfactory, and prices have been irregular and unremunerative. No improvement has taken place in the price of coal in Pennsylvania. The aggregate production of anthracite

bituminous coal in that State to October 13 this year was 17,825,412 tons, against 16,272,226 tons in the corresponding period of 1876, showing an increase of 1,553,186 tons this year.

REPORT FROM CORNWALL.

Nov. 8.—The anticipations of further improvement in the tin market, to which we ventured to give expression, have been speedily realised, for on Monday the unofficial advance of 2*l.* was converted into an official advance of 3*l.*, with a range of prices in special cases above that limit. Whatever may be the outlook of the skies, this is the brightest November Cornwall has seen for years, and if this is so while the war continues, and trade generally is depressed, what may we not expect when there is that wider improvement in business enterprise which we have early reason to look for? Shares in good mines may be expected to go a good deal higher yet, and for the time this is the best form that the improvement can take. It is too early yet to be talking of new ventures. They will come, but meanwhile it is best to consolidate what we have.

It is very odd that this should be the time that a lady—Miss A. W. Buckland—should have chosen to write to the London Standard and draw a kind of parallel between the mining distress which she says exists in Cornwall and the famine in India, and appeal for help for the poor Cornishmen. Her motive, doubtless, is excellent, but the communication throughout betrays the casual visitor and the utter novice. The effect of her letter is to depict all the depression under which Cornwall has passed within the past nine or ten years as actively existing at the present day; and those who did not know better might well be excused for imagining that three-fourths of the mines have been shut up as a consequence of the last crisis, and that, instead of the worst being past, a lower deep was yawning into which our mining was about hopelessly to descend. There is a good deal that is true in her letter, but absolutely nothing that is new, and much that was true and is now no longer so. As to her inference and conclusion that Cornwall needs the alms of the United Kingdom, we repudiate it altogether. When something like the distress which she paints really existed in all its varied forms Cornwall was able to take care of itself; and what we want now is not alms, but such an improvement in general industry as will give us a better price for our produce. Miss Buckland, if she looks for it, will find distress all over the country quite as keen and as widespread, to say the least, as that which she imagines exists in Cornwall, without the many mitigating features which surround mining employment here, and of which she seems, and doubtless is, utterly unaware. Distress there is in the county, but not in that form and to that extent that needs to be grappled with by special effort.

A very practical suggestion in the way of improvement by creating a wider demand for tin was made in an excellent paper by Mr. W. C. Borlase, F.S.A., at the annual meeting of the Royal Geological Society, of Cornwall, over which Mr. Warington Smyth, F.R.S., presided. Mr. Borlase showed that in times past, and in foreign countries now, pure tin was used for the manufacture of articles of use and beauty, and argued that in this way the employment of the metal might be largely extended.

"It is probable that the adoption of tin for carrying pure water through pipes, so much recommended by scientists of late, may help just a little. Musicians, too, have found out that organ pipes are best when made of purest tin. This fact if universally acknowledged might help still more. The objection to making tea-chests, &c., of pure tin—that being quickly worn out the metal would be reconverted, and so in the end hinder the demand—even if it be a valid objection at all, would not hold in the case of which I am speaking, since the articles would be solid and lasting. Might not a new industry, then, be created which would show that articles such as dinner-services, including hot water dishes, covers, &c., biscuit-boxes, and ornamental objects such as those which lie before you, could be produced with profit? Would not many a Cornish housewife fill her dresser with tin plates if she found them clean and bright, serviceable and cheap—not only for the name of the thing, as the lord's, or the agent's wife, or the tinner's daughter, but for the good of her native county? I think she would do so. Would not a pure tin dish-cover or biscuit-box, which pretends to be nothing more than it is, be much more in demand than a plated article, which would be silver if it could, and always gets found out as it grows older? Would not visitors to our watering-places buy a bracelet if made of solid Cornish tin, burnished and chased, warranted tinned, save with its slight alloy of antimony or arsenic, and if raised from the mines in the neighbourhood? Who knows, a shop in Regent-street would follow, like that for the sale of aluminium. At all events, however infinitessimal it might be in proportion to the quantity brought into the market, there would be a slightly greater demand for tin, and it might be reasonably hoped, as a consequence, a slightly better price. But I think I hear some scoffers saying, "Who'll care to have anything made of tin in these days? It is true our grandmothers had their thick tin saucepans and kettles, and would use no others, but the very idea of tin has got to be indissolubly connected with the modern tin-kettle that the prejudice against the metal will be too strong for you." But I need not remind my present audience that a tin-kettle is no more tin than is a gilded Easter egg, such as one sees abroad, made of solid gold. Tin in itself is a true and beautiful metal, capable of receiving so high a polish as to make it scarcely distinguishable from silver. It is common, however, with the more precious metals it is not hard enough in itself, but must have an alloy (antimony or arsenic), the proportion in which such an alloy would be used depending on the amount of hardness required in the article to be produced.

"In the year 1843, when the price of tin was very low, the late Mr. Stephen Harvey James, of Botallack, in connection with the late Mr. Richard Davy, gave instructions to Messrs. Dixon and Co., of Sheffield, to turn out for them a dinner-service of pure tin—the exact words being 'as full of tin as possible consistently with hardness.' The object with which the order was given was well worthy of that patriotic and enterprising spirit which characterised a generation too fast passing away, and, as such, it should be recorded. It was to induce mine agents and others to follow the example, and so to stimulate demand for tin. The dinner-service, of which the present Mr. Stephen Harvey James has lent me some specimens for exhibition here, consists of nine dozen plates, dishes and hot-water dishes of all kinds to match, covers, cruet-sets, and all complete. The whole of this large service cost less than 50*l.*, a fact which shows that, if in the absence of any definite tin-ware manufacture, articles could be turned out at so low a price, upon the establishment of such a branch of industry, they would be, relatively to porcelain and crockery in the case of dinner-services, extremely cheap. The plates before you have been in pretty constant wear ever since they were obtained—34 years ago. They are not bulged or damaged, and they are not so deeply scratched as either plate would be after a like amount of use. The alloy in this case was antimony. Mr. James reports of them that they are clean and sweet, and serviceable in every respect; and that they are undoubtedly a good investment, if only for the saving in cookery. Considering, too, how well they burnish they may be considered to combine use with beauty."

The only difficulty probably is the idea existing in the mind of the public that tin plates are tin; but that may be got over, and as Mr. Smyth pointed out, tin requires less labour to keep bright than any other white metal.

The Mining Institute has inaugurated its second session by a discussion on Stamps, following a paper read by Mr. Loam. That gentleman held that Cornwall was on the verge of a great change in mining operations that would call for more rapid development and increased returns, and that the present stamps, from their construction, would not prove equal to the requirements. Stamps were now worked by cams and the fall of the hammer produced the stamping effect. Thus worked, and within its range of action, it formed a simple and effective battery, but the speed and extent of fall of the head were limited, and under the most favourable conditions were practically reduced to 60 or 70 blows of 9 to 12 in. each per minute. This limit, due to the natural and unalterable law of falling bodies, was a vital defect. It had long been known, and, indeed, generally admitted, that the efficiency of stamps increased in a greater ratio than was mechanically due to the increased speed. In other words, the head of a given weight with double number of its blows in a given time would more than double its effect in stamping. This showed the importance of speed in stamping, and that speed could not be obtained by cams, and it also indicated the direction in which improvements must be sought. Much misplaced ingenuity had recently been spent in some of the so-called improvements in the stamps, several of which the most elementary principles had been entirely ignored. Direct-acting stamps or steam-hammers had been tried and failed, and it was the pneumatic stamps which, so far as he was aware, first successfully secured the true principle of free and unlimited speed, with force to increase the blow. This had unmistakably the stamps of the future. It had hitherto made slow progress in Cornish mines, but this was mainly due, he thought to the fact that few new ones had been successfully established since its introduction, and to the extensive and good stock of stamps in the old mines. Something also was perhaps due to the cautious acceptance of new machines by responsible mine managers, and to a want of accurate knowledge of its principles and capabilities. Each pneumatic head was equal or superior in effect to an ordinary 16-head battery of cam stamps, and he had no doubt it could be manufactured at less than half the cost per horse-power of the ordinary stamps, the engines, boilers, and buildings being the same in both cases. With regard to wear and tear, Captain Harris informed him that in two months' working at Wheal Vor the wear and tear of the heads only was 1 lb. for each ton, or 1 ton of stuff stamped—less than half, he believed, the wear and tear; while from its construction he believed it would maintain its efficiency longer, and, of course, with less wear and tear.

The discussion which followed evidently showed that the days of the old gravitation stamps are numbered, though it showed also quite as clearly that they will die hard. Mr. Husband give some interesting particulars respecting the work of the pneumatic stamps, which he invited the members of the Institute to see repeated by experiment at Hayle. A given quantity of the very hardest stuff from Dolcoath was stamped in 17 min.; same quantity of blue elvan, 9 min.; hard limestone, 11 min.; granite, 10 min.; stuff from West Seton, 9 min.; stuff from Mellanear Mine, 8½ min.; and common grey slate, 7 min. He had also tried experiments with the stone-breakers, the result of which was that they saved 2 min. upon the stuff coming from Dolcoath, and the other stuff in the same ratio. He had also placed in the stamps aperture stones as large as it could possibly take, with very favourable results, showing the great advantage of having velocity. They could also afford to follow foreigners in erecting heavier heads, the foreigners possessing stamp-heads three times as large as those in use in Cornwall.

In the late Mr. Christopher Childs, who has died at his residence, Liskeard, Cornwall has lost one of her best known and most respected lawyers, a gentleman who in many ways has done good service to the cause of mining. He was one of the most active members of the County Committee, which dealt with the proposed legislation that eventuated in the Metalliferous Mines Regulation Bill, and had filled many important public positions.

The Great Western Company have now definitely acquired the property of the Cornwall Minerals Railway under what is practically a perpetual lease. The Cornwall Minerals Company practically carried out the designs of the late Mr. Austen Treffry, who sought to carry a tramway over the county from Par to New Quay. His speculations so "dipped" his estate that for years the Treffry property has been in the hands of trustees. Now, the wisdom of his projects has been made abundantly manifest. The purchase money of the Treffry tramways, &c., has been handed over to Dr. Treffry, the present owner, and the handsome sum of 103,500*l.* clears the estate, and abolishes the trust.

TRADE OF THE TYNE AND WEAR.

Nov. 6.—The demand for house and gas coal improves a little, and prices are somewhat better for first-class coals. Shipments of these coals have been large, some cargoes of gas coals being sent to America lately for the supply of some of the coast towns. In Durham the bulk of the works are kept going about eight days per fortnight. A small number are worked 11 days, and a few from five to six days per fortnight. More works are to be stopped in Durham and Northumberland, of course old works, and those placed unfavourably for being worked cheaply are first closed. The Shotton Colliery, a large work near to the famous Haswell Colliery, South Durham, and owned by the same masters, is to be stopped. There is no change in the demand for coke or any other description of coal, and the competition for the sale of inferior coals is still so great that they are sold in many cases at prices which result in a loss. In Northumberland the Cramlington Colliery is to cease working, and others will likely be closed before this movement is stopped. Cramlington is one of the oldest works in the Hartley steam coal district. The first shaft was got down into the main seam after many difficulties from water about the year 1828. An immense quantity of coal has been got from it since that time.

Great success has attended the efforts to settle the differences between the men and the masters in the steam coal field. It will be recollected that Mr. Herschell was appointed umpire when the last dispute took place, the masters wishing to make a reduction of 10 per cent. and other charges. He, however, did not award any reduction in prices, but made certain suggestions to the men, and urged upon them the necessity of—1. Increasing the number of hours worked in the face.—2. Working 11 days per fortnight when possible.—3. Throw back the small coals and other refuse and leaving it underground. After much discussion all those suggestions have now been adopted by the men, and there is no doubt that the result will be advantageous to all the parties concerned. The men will after the 12th instant be seven hours down the pit, and work six hours on the face; this will enable them to get more round coal, and also to do their work in a less hurried manner than heretofore.

MINING INDUSTRIES IN GERMANY AND ENGLAND.

At a meeting of the North of England Institute of Mining and Mechanical Engineers at Newcastle, on Saturday (the President, Mr. Lindsay Wood, in the chair), a paper "On the Condition of Mining Industries in Germany" was read by Mr. J. B. Simpson, of Ryton-on-Tyne. Mr. Simpson said that at the present time, when the depressed condition of the coal trade was so great in this country, it could not but be interesting to compare what is being done in other countries, especially in those with which we have to compete, and he proposed to carry out the comparison by a review of the condition of coal mining in Germany, which was the next largest coal-producing country to our own. The most important coal fields of Germany were the basins of the Saar, Aachen, Buhr, Zwickau, and Upper and Lower Silesia. The oldest coal workings were, probably, those of Aachen, which were commenced so far back as the eleventh or twelfth century. Of not much later date were those of Westphalia and Saxony, whilst those of Saar date from about 1529. The progress of mining in Germany during the present century, and going no further back than 1853, has increased from 8,500,000 to 43,500,000, or upwards of five times. The mining industry of Prussia during 1875, taking into account production only, was not such a failure as was expected at the beginning of the year, and when looked at from a commercial point of view the result is all but favourable. The ironworks, the foundries working for home consumption, and the rolling and puddling mills, were throughout the year sufficiently employed; the bar rolling-mills, however, were almost completely stopped, the home trade was at a minimum, and the export, especially to America and Austria, was completely lost. Through this many ironworks were forced to reduce their price. The prices, notwithstanding the reduction in the two previous years, fell still further—pig-iron 27 per cent., wrought-iron 21·3 per cent., and rails 20 per cent., those closely coming down to, and in some cases even below, cost price. Towards the end of the year, as trade did not improve, some of the larger works were closed, and others reduced their output, and during the following year others followed their example. The bad condition, however, of the ironworks had a great influence on the price of fuel, because they could only work on condition of getting fuel cheaper. Accordingly the price for both iron and coal went considerably down. Coals fell on the average from 12 to 15 per cent. Increased production was more connected with low prices than was generally supposed, for in order to get some chance of profit there was a universal endeavour on the part of the coalowners to increase quantities as much as possible, thereby to decrease the cost of production, and to this end also the total number of men employed was reduced. A feeling of greater security sprang up, and there was a firm conviction that the return of better conditions could only be brought about by increased activity, strict management, and saving, and in these directions much has already been done. Endeavours had been made with considerable success to reduce the cost of production in regard both to materials and wages, and the men consented to a reduction of 15 per cent. in their wages, and to work longer hours. The coalowners also made endeavours to remove many difficulties which interfered with the transport of their produce. They succeeded in reducing the railway tariffs, especially so as to be able by this means to compete with other countries. The Westphalian coal has succeeded in enlarging its market in France and Belgium, and there is a chance that it will be able to partially supersede English coal in the ports of the North Sea and elsewhere. Of the two Government Mining Colleges the one in Berlin had 82 students during the summer session of 1875, and 93 during the winter of 1875-6. During the same sessions in 1874 the numbers were 60 and 93. The other, situated at Clausthal, had 93 students during the winter session of 1875-6, against 63 in the preceding year—35 were foreigners. The number of accidents in mining in Prussia in 1875 amounted to 587 deaths, or of 2·449 per 1000 working miners, while in 1873 it stood at 2·504, in 1874 at 2·431, and the average for 10 years from 1866 to 1875 was 2·471 per 1000. It is quite evident, therefore, from the statistics quoted that great efforts have been made in the various districts of Germany to develope the coal and other mining industries, and taking the last 15 years there has been no less than 134 per cent. increase of output, whereas in Great Britain we have only 58 per cent. However, the quantity produced is far short of the ultimate requirements of the country, for 1 ton per head per annum of the population in Germany is sufficient, in Great Britain we have 4 tons. The increased percentage in Great Britain was as follows:—In 1861, 96,419,941; in 1876, 133,344,760; whilst in Germany in 1861 it was 18,755,360; and in 1876, 43,451,372. The establishment of mining colleges and schools for all classes of the community engaged in mining is very praiseworthy, and showed that technical education was very much appreciated. The paper showed also that the Germans were alive to all new inventions and improvements for the safe and economical working of their mines. There are 10 per cent. more persons killed per annum on the number employed in Germany than in England, and for each death there is a production of 50 per cent. more material in England than in Germany; and when we consider the mines in Germany are chiefly shallow, many of them lignite, often worked at the surface, and with little or no inflammable gas, we have reason, sad enough as our losses are, to congratulate ourselves on the comparison.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Nov. 8.—The Coal Trade is disquieted by the attitude of the colliers touching the wages question. Meanwhile consumers are ordering slightly better, not being certain for the moment what course the men are likely to pursue. Prices are no stronger than they were a week ago; they are kept down by the output of new concerns, which are displaying increasing vigour. The pig iron trade is dull, and there are no signs of any early improvement—4*l.* is the quotation for hot-blast all-mine. Hematites of the West Coast and Cumberland are quoted 3*l.* 15*s.*, but are easily obtainable at 2*s.* 6*d.* less. Lancashire iron of certain brands is being bought at 3*l.* 10*s.* No difficulty is experienced in obtaining Derbyshire iron for 2*l.* 15*s.* per ton. The finished ironmasters are mainly employed upon best bars, and upon sheets for galvanising. The demand for sheets is not, however, quite so marked as it was a few weeks back. The minimum price for singles is 8*l.* Staffordshire bars for export are selling in Liverpool at 6*l.* 15*s.*

A conference has been held between the South Staffordshire colliery proprietors and delegates of the men as to the new wages scale. It was agreed to adopt as the future basis the old Birmingham agreement originally drawn up by Mr. Chamberlain, M.P., with a fixed maximum and minimum, but upon the understanding that the rise and fall in wages should be 3d. in 1s. on the selling price of Thick coal and 1½d. for Thin coal, instead of as formerly, 6d. and 3d. respectively in the 2s. The agreement, it was arranged, should remain in force for six months certain, and to be subject to three months' notice. The question as to "allowance coal and perquisites" is unaltered. That the general body of the miners will accept this agreement is doubtful. Meetings have been held in several localities, at which the terms have been refused, and at certain collieries in the Dudley district the notices by the men have been renewed for a termination of present engagements, with a view to a rise. Some little trouble in this respect is anticipated. To-morrow (Friday) representative coalmasters and colliers will again discuss the scale.

Quietness still marks the business of the local Stock Exchanges. Sandwell Park shares have sold since my last at 8⅞ premium, and sellers now stand at 9 premium, buyers offering 8¼. A call of 2*l.* a share has just been made by the directors of the Cannock and Huntington Colliery Company, payable by the 20th instant. This action which was expected, is injuriously affecting the market, and holders are now offering at 5 dis., but buyers demand a further 1 per cent. off. When the call is realised it will make 10*l.* paid-up on the 20*l.* shares. The 8*l.* paid shares of the Darlaston Coal and Iron Company are offered at 1*l.*, but there are no buyers. Speculators offer 12 dis. for the Pelsall Coal and Iron Company's property, but without success. The shares of the Patent Nut and Bolt Company have sold at 7*l.* 0*s.* 6*d.* premium.

Colliery owners should note that Mr. Wm. Shorthouse, proprietor of the Moat Hall Colliery, has, at the instance of Mr. Thos. Wynne, Government Inspector, been fined by the Shrewsbury magistrates for five breaches of the Mines Regulation Act. For neglecting to properly ventilate the mine, whereby in one part of the workings 700 cubic feet of gas had accumulated, he was fined 5*l.* and costs. And fines of 1*l.* and costs were inflicted for not having proper signalling apparatus, for not having the machinery properly fenced, for neglecting to record explosions, and for not making a true report on the ventilation of the pit. The defence in each case was that the defendant was ignorant of the neglect, for he sublet his mine to a man named Mansell, who it was contended was responsible.

In North Staffordshire the number of colliers on strike is still decreasing, and the few hundred men who are out have no chance of success. There are colliers at certain of the mines who are threatening to come out, but so far as the market goes it will make little difference whether the number of idle pits increases or not, as there are more than enough in operation to supply the limited demand for coal and ironstone. The pig and finished iron trade is without any improvement. Prospects for the winter are the reverse of cheering, and it is feared that short time at the mills and forges, and decreased output at the furnaces, will extend.

The Walsall Wood Colliery Company have completed the sinking of a 15 ft. shaft, and at a depth of 545 yards have passed into the deep coal of the Cannock Chase district. This measure is 4 ft. 10 in. thick, and separated from it by 12 in. of parting is 1 ft of roof coal, over which is strong rock. It is of excellent quality, and equal to any deep coal on the Chase. The shaft is the deepest in South Staffordshire, and passes through the following seams:—1. A chance coal, 7 ft. thick, of fair quality.—2. The 7 ft. coal 8½ ft. thick; a good forge coal.—3. The 4 ft. coal; a good steam coal, and with it a measure of Gubbin ironstone, turning 12 cwts. of stone to the yard, the two making together a very good working.—4. the 5 ft. coal; a strong forge coal.—5. The brooch coal, about 3 ft. thick; a first-class house coal.—6. The yard coal, 3 ft. thick; a good house coal, and being very strong, a good blast-furnace coal.—7. The shallow coal, 4 ft. 6 in. to 5 ft.; a capital house coal—and 8, 15 yards below that, is the deep coal above mentioned. This shows a total thickness of 40 ft. of workable coals in the Walsall Wood field.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Nov. 8.—Little change has taken place in the mining districts of Derbyshire since my last notice, but the lead mines business is very quiet, and excepting at some three or four places there appears to be as little life as if there were no mines or miners to be found in localities that at one time were busy scenes of industry. Workmen have had to go into other districts, whilst those remaining get wages such as are paid to ordinary labourers, and some of them even not that. The old Roman town of Worksworth, with its lead officials and the "dish" presented, if I mistake not, by Henry VIII. for measuring, appears to have declined; but in one direction it appears to have been taking a step forward by the establishment of a publichouse for working men without intoxicating materials, and where the frequenters will not be "allowed to be drunk on the premises." The decline of late years, however, in the production of lead is a serious matter, and one would think cannot be caused by the exhaustion of the ore, seeing that the field is a very extensive one. But there does not appear to be anything like speculation on the part of capitalists in the country, and this may be accounted for by the ill success which has attended most of the companies that have ventured to open out lead mines. The collieries, on the other hand, are rather busier than they have been, especially as regards house coal, in which a steady business is being done with the Metropolis. Coal, however, appears of late to have become more than usually plentiful in London, for, singular to say, prices in the course of three or four days have come down no less than 2*s.* a ton. Merchants, however, have had a very good time of it, which is more than can be said for the colliery owners, who are subject to a great deal of competition, seeing that the power of production is so very much in excess of the consumption. Steam coal has undergone but little alteration, the fine open weather allowing of shipments being made to all parts of Europe.

Most of the Sheffield trades are still very quiet, and orders come but slowly to hand, so that many of the workmen are still on short time. The Bessemer rail mills continue to work very well, but the demand for other descriptions of railway material is still but mode-

rate. Crucible cast-steel is not in anything like sufficient request to keep the makers fully going, although a good deal is now used for the construction of wheels instead of iron. Australia and some other of our colonies are sending some fair orders for cutlery and implements, but business with Europe generally is still very flat, and is not likely to improve so long as affairs continue in their present unsettled state. In malleable iron and castings the trade continues steady, owing probably to the multifarious purposes for which malleable material is now adopted, and which may be said to have been brought to something like perfection by the large firm of Crowley and Co., whose products are remarkably fine and sharp, more particularly in ornamental work. The foundries are doing tolerably well, but with plenty of room for improvement. In South Yorkshire the collieries are working fairly, but prices of house and other coal are still what may be termed low, particularly for the season.

The strike at the Dodworth Silkstone Colliery still continues, and the men are again in receipt of strike pay, although they refused to be bound by the decision come to about a fortnight ago at a conference between the manager and a deputation of the men and one of the officials of the Miners' Association. At Corton Wood it is also said that the men have not as yet resumed work, although it was understood that an arrangement had been come to a week ago.

On Wednesday there was a meeting of the Midland Association of Mining Engineers at Barnsley, when the telephone was introduced to the notice of the members and their friends. Of it we may say that it did not create any sensation whatever, although the distance between the places where the experiments were made was only about a couple of miles.

[We are requested to correct an erroneous statement in last week's Journal. In the report from Derbyshire and Yorkshire it was stated that "the men are still on strike at the Hoyland Silkstone Colliery." We are glad to learn that the men at that colliery are not on strike, nor any prospect of their being so.]

A NEW COAL FIELD.—There was a large gathering at Monckton Main, about six miles from Barnsley, on Saturday, to celebrate the winning of the well-known Barnsley coal on the estate of Lord Galway. The coal was found at a depth of 470 yards, and the first sod was cut on May 24, 1875, so that the sinking was done in a remarkably short time. About 300 persons sat down to an excellent dinner, the chair being occupied by Lord Galway. Lord Houghton, in proposing "Success to the Monckton Main Colliery Company," said that the toast was in one sense wishing a disadvantage to himself as a colliery owner. They knew what a large output of coal there had been of late years, and they knew that profits had decreased, and therefore the opening of a new colliery was a serious disadvantage to every existing coalowner. He hoped the colliery would be worked in a way worthy of the company which had provided the means. But there was something besides, and that was the labour. They were all working men in a sense, and if they were not it would be much better if they were out of the way. They must depend on capital to provide the machinery with which to develope the colliery, but all this would be useless without human labour. There must be industry, but industry would not do all, for there must be muscle and a certain degree of education, so that a man might learn his business and apply his knowledge, and this was what a working man might benefit by as much as the most educated man in the kingdom. There was one last point, and he asked them to remember at the time of their prosperity what was going on in Scotland. With that calamity before them, he appealed to them to do all they could to protect the lives of their fellow working men and the property of their employers.

REPORT FROM THE FOREST OF DEAN.

Nov. 8.—Little of interest has occurred since our last report. Some affirm, however, that there has been a slight pause in the recent improvement in the Coal Trade, though, for ourselves, we believe that it has only been a pause, and so moderate that it has only affected the output and labour market slightly. The labour market, however, on the western side of the Forest is in a deplorable condition, especially at and round about Parkend. Our opening remarks apply more especially to the eastern side, as only one or two collieries of importance are doing much on the western side, so that many of the colliers and iron miners are suffering for want of employment and the badness of the times. Parkend furnaces and tinplate works, when in full operation, found employment for a large number of hands, so that when trade was good the workmen prospered, and when the workmen prospered then the shopocracy prospered. Now, however, and for a considerable period, silence and suffering, instead of activity, characterise the works and district. The stoppage of Parkend Works has proved, in fact, a great calamity to the district. Very much suffering has been felt, and the "pinch" has led numbers to leave the Old Country to seek a new one at the Antipodes. We hope, however, that when trade improves Parkend Works will re-start, and that then the district will revive, and the people enjoy renewed prosperity. At present, however, the western side of the Forest, but especially at Parkend and neighbourhood, is enduring the sad effects of almost stagnation. Some of the board schools are nearly completed, and will soon be opened, but the people generally are not in a good position to bear fresh burdens, for school rates, sewage, and water rates will be so many new expenses which hitherto the Foresters and Forest population have been exempt from; but the improvements were greatly needed, notwithstanding that the additional expenses are coming (or come) at an unwelcome time.

We are pleased to report that the Severn Bridge is advancing, fourteen spans being now nearly completed, and three more advancing by pier columns erections for spans, so that with good luck and no disaster from storm or tide to retard operations, we may look forward to the joy of its being opened some time next summer. We would, therefore, fain hope that through the completion of the Severn Bridge, and the Whimsey and Mitcheldean Road Railway, which will be two additional outlets for our produce, the Forest trades will again revive in a permanent degree. Quotations are as they have been for some time past.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

Nov. 8.—The Iron Trade alters but little as times go on, and the changes to note are very trifling. This week no new phase has been entered upon, and prices are about as low as they can well be. Orders come to hand very sparsely, but there is a small one, it is understood, for rails lodged in this district on account of Denmark. Clearances are exceedingly few, the amount being below even recent averages. A few hundred tons of rails have been forwarded to Sweden, and this is about all. There is apparently a little improvement in the merchant bar department—a cargo of this description has been sent to Lisbon—but for commoner bars the Belgians are beating us out of the field. Here is the usual amount of activity observable at the steelworks, and a fair amount of work is being turned out. The Tin-Plate Trade continues in an unsatisfactory condition, the great falling off of the American demand being much felt. No change for the better can it is believed possibly take place this year. So far as the Coal Trade is concerned, it is impossible to note any improvement as regards prices, and week after week it is becoming apparent that there is a scarcity of foreign orders. This arises from the fact of many of the foreign stations being well, or in some cases over, stocked. In house coal there is a moderately good amount of business doing, and in some instances slightly enhanced prices have been obtainable. Patent fuel is dull.

The award of the Sliding Scale Committee of the South Wales Conciliation Board has been issued, ruling wages for the last half of the year. As everybody expected, the minimum standard is still to prevail. The report of the accountants who had examined the masters' books for the six months ending June 30 showed the average net selling prices per ton of colliery-screened large coal, delivered free on board at the three principal South Wales ports, to be—Group No. 1, steam coal, 9s. 5·05d.; group No. 2, Mynyddislwyn and Tillery, 9s. 3·56d.; group No. 3, Rhondda coal, 8s. 11·806d.

At some of the collieries in the Aberdare Valley work is very slack, and it is feared that some will be closed altogether. Notices to terminate contracts at the end of the present month have been posted by the Powell Duffryn Company, Messrs. D. Davis and Sons, and Messrs. Nixon and Co. At the Cwmpennar Colliery, Mountain Ash, a similar notice has been given. Recently a deputation of colliers employed by the Llynvi, Tondu, and Ogmore Company have waited upon Mr. A. Brogden, M.P., to hear if a change could not be made in the system now in force "of long pays and short draws." A meeting of colliers has been held to hear the reply of the deputation. Mr. Brogden said he could make no alteration in the system in the present condition of the staple trades. A notice of a 5 per cent. reduction is now posted, and will expire on the 10th, and the hon. gentleman said another notice of a 5 per cent. reduction would have to be given at the expiration of this date. Were this declined by the men the Garth, Duffryn, and other pits would be closed.

Some time ago I alluded to the probability of a scheme being brought forward for connecting the Rhondda Valley directly by rail with Newport. It is satisfactory to be able to state that application will be made to Parliament in the matter next session. The leading colliery proprietors and capitalists of the counties of Glamorgan and Monmouth are in favour of the scheme, as well as the directors of the Newport Alexandra Dock Company. This project, if carried out, must prove of great benefit to the port of Newport.

Mr. Maynard Harrison has received an elaborate address from a number of the men who were formerly under his charge. Mr. Harrison managed the Fochriw and New Brithdir Collieries, belonging to the Dowlais Company, and he now leaves to undertake the management of the Rhymney Company's Darran and Cefn Brithdir Pits.

Final arrangements have been made for the distribution of the local fund raised at the time of the Tynewydd Colliery disaster. The committee have a sum of 1164*l.* 0s. 10d. in the bank. Certain managers are to be presented with illuminated addresses, and a complaint was made at the meeting held that the name of Mr. James Thomas, the manager of the Tynewydd Pit, was, among others, omitted. A speaker said they would thus be judging him after the charge had not been proved against him at the Assizes. It was resolved to add Mr. Thomas's name to the list.

REPORT FROM THE NORTH OF ENGLAND.

Nov. 8.—The monthly returns of the Cleveland and North of England Ironmasters' Association for October were issued on Tuesday, during the time that the weekly iron market was being held at Middlesborough, and they naturally exercised a good deal of influence upon the transactions that were effected. It may, indeed, be said that they tended very considerably to keep prices down, seeing that they presented few features or indications of a cheering character. The production of pig-iron for the month was 169,701 tons, being an increase of 465 tons upon the make for the previous month of September, but a decrease of 1381 tons on the make of October, 1876. This production has been arrived at with five fewer furnaces than were in blast in October of 1876, the total number of furnaces now blowing being only 105 out of a total of 162. In the foreign shipments of pig-iron from Middlesborough for the month of October there is a decrease of 2871 tons, as compared with the corresponding month of last year, but this deficiency is more than compensated for by the increase in the shipments coastwise, which reached the exceptional figure of 12,774 tons, the total shipments for the month, both foreign and coastwise, being about 80,000 tons. There has been a decrease in makers' stocks to the extent of 7632 tons, but in the stocks in warrant stores there is an increase of 3970 tons, so that the net decrease of stocks is less than 4000 tons. But even this slight decrease is satisfactory, indicating that for the time being at all events the production of pig-iron is less than the consumption.

New blast-furnaces are being built by the Consett Iron Company, by Messrs. B. Samuelson and Company, and by Palmer's Iron and Shipbuilding Company. It is also announced that Messrs. Bolckow, Vaughan, and Company intend to proceed with the erection of other two furnaces at their New Eston Steelworks, which will bring up the total number of furnaces at these works to five, and leave other two yet to be constructed in order to complete the original scheme of the directors.

On Tuesday the Eston Grange Iron Company's works were offered for sale by auction in the Middlesborough Exchange. It is little more than two years since these works were erected by a partnership, chiefly composed of Messrs. Thomas Ingledew and Harrison Groves, for the purpose of making merchant iron by the use of a new furnace and refinery patented by Mr. Thomas, formerly manager of the Acklam Refinery at Middlesborough. Either the company or the furnace, or both, failed to succeed, and the works, after entailing a very heavy outlay, were discontinued. Seeing that they are very favourably situated, and of such recent construction, it might have been expected that the works would have commanded some competition, but the auctioneer failed to elicit a single bid, thus proving the great want of confidence now felt in ironworks of this class.

The shipments of coal from the ports on the north-east coast continue much below the mark. During the month of October nearly 100,000 tons less coal were shipped from Newcastle to foreign ports than in the corresponding month of last year. There has, on the other side, been an increase of a few thousand tons in the shipments coastwise, but taking the shipping trade as a whole the falling off is rather serious.

The Finished Iron Trade, like the pig-iron market, remains so much in *statu quo* with reference to prices and production that there is really very little to be said about it. It may, however, be remarked that there is a slackening of the demand for ship-plates, leading to a well founded apprehension that there will not be such activity in this department as there has been. No new rail orders have been received in Cleveland, although manufacturers are disposed to cut prices exceedingly fine in order to command a little trade. Makers of merchant iron are also slack.

A decline of close on 2000*l.* in the mineral traffic receipts of the North-Eastern Railway for last week indicates that there is, in the railway as well as in the sea borne coal from the Great Northern coal field, a decided falling off. One or two additional collieries are about to be stopped.

SMELTING, AND SMELTING FURNACES.

An improved system of smelting furnace, the invention of Messrs. MOLLER and STEPHENS, of Plainfield, New Jersey, is at present being introduced in America; it consists of a furnace proper with a roasting oven directly above the same, and with hollow supports connecting both, leaving an open space between the oven and the furnace proper, whereby a charge of roasted ore may be dropped directly from the said oven into the furnace. In combination with the furnace there is a heater with a reverberating combustion chamber, a coiled blast pipe, and a duct terminating in a tuyere. There is also a hot-air pipe connected with a coil heated by the waste products of combustion from the roasting oven, and with a tuyere leading into the smelting furnace. The chambers above the roasting oven are provided with valves and flues. A conical deflector is employed in a duct connected with the combustion chamber. In this duct is a hole or opening closed by a plug, which hole permits the introduction of a rod for cleaning the tuyere. This deflecter fits as tightly as possible in the duct, so that there is no air passage around the periphery. At the end of the duct is secured in any suitable manner another duct made of wrought-iron or refractory material, or lined with refractory material. To the smaller end of this duct is secured the tuyere, which enters the bottom of the furnace proper through a suitable channel way or recess in the brickwork.

In combination with the tuyere they arrange a water-pipe for conducting water to the tuyere for cooling the same. In some cases the heaters are not employed, but instead thereof they use coils and a hot-air pipe connected directly with the tuyere. In these cases the deflector is dispensed with. The invention also comprises a process of reducing ores by roasting, desulphurising, and purifying the same in a thin layer. The process of roasting and desulphurising is exerted upon ore in a thin layer, by means of which the same is completely desulphurised and otherwise purified in a very short time. The ore thus roasted is dropped while cherry-red hot, or at a high heat, into the smelting furnace without disintegration, thereby saving the great expense of reheating the same. Although the furnace is peculiarly adapted for the treatment of stubborn iron ores, it is also well adapted for the reduction of ores other than iron, and may be used not only with antracite or bituminous coals, but with coke, charcoal, peat, or other fuel.

THE COAL TRADE.

Mr. J. R. Scott, the Registrar of the London Coal Market, has published the following statistics of imports of coals into the port and district of London by sea, railway, and canal during October:—

By sea.	Ships.	Tons.
Newcastle	185	157,739
Seaham	26	16,630
Sunderland	110	83,232
Middlesborough	7	2,580
Hartlepool	81	27,765
Scotch	14	4,091
Welsh	9	1,958
Yorkshire	22	2,129
Small coal	7	2,681
Cinders	3	361
Total	464	299,166
Imports—Oct., 1876	497	312,219

By Railway and Canal.	Tons.
London & North-Western	118,879
Great Northern	108,637
Great Western	93,394
Midland	174,151
Great Eastern	46,472
South Western	7,097
Lond., Chat., and Dover	10
South-Eastern	1,800
Grand Junction Canal	328
Total	850,661
Imports during Oct., 1876	820,980

Comparative Statement, 1876 *and* 1877.

By Sea.	Ships.	Tons.
Jan. 1 to Oct. 31, 1876	4595	2,852,969
Jan. 1 to Oct. 31, 1877	4325	2,524,101
Decrease—1877	270	128,868

By Railway and Canal.	Tons.
Jan. 1 to Oct. 31, 1877	4,414,639
Jan. 1 to Oct. 31, 1876	4,249,206
Increase—1877	165,433

Mr. J. R. Scott has also published an export list, showing the distribution of coal imported into the port or district of London by sea, rail, and canal, and afterwards exported coastwise or to foreign parts, or sent beyond limits of London district by rail or inland navigation during October:—

Railway-borne coal passing *in transitu* through district	Tons	93,069
Sea-borne coal exported to British possessions, or to foreign parts, or to the coast	Tons	38,854
Ditto, sent beyond limits by railway		11,032
Ditto, by canal and inland navigation		2,966 = 49,852
Railway-borne coal exported to British possessions, or to foreign parts, or the coast		49,261
Ditto, by canal and inland navigation		441 = 49,705
Sea-borne coal brought into port and exported in same ships		630
Total quantity of coal conveyed beyond limits of coal duty district during October, 1877		192,947
Ditto, October, 1876		169,954

Comparative Statement, 1876 *and* 1877.

Total distribution of coal from January 1 to Oct. 31, 1877	1,590,266
Ditto, January 1 to Oct. 31, 1876	1,579,918
Increase in the present year	10,348

General Statement.

Increase in coals imported by railway and canal during the present year	165,433
Less decrease by sea	128,868 = 36,565
Deduct increase in coals exported	10,848
Total increase in trade within London district during present year	25,717

Mr. Alfred Carter, Laurence Pountney Hill, has joined the board of the Canal Street Ironworks Company (Limited), Derby, makers of engine and carriage wheels, and his firm (H. and A. Carter) has been appointed sole agents to the company.

BLAEN CAELAN.—This mine, which was worked so successfully some years back, but afterwards came to a standstill through litigation, was purchased about nine months ago by local parties. Since then some scores of tons of ore have been raised and dressed from the abandoned workings over the adit and the 10 fm. level. The present proprietors, however, have hitherto been principally employed upon extensive improvements and repairs, which are now completed. It is said that from the stopes above adit and the stopes above the 10 east nearly 10,000*l.* worth of ore was got out by former company in a very short time. In these stopes are still to be seen the fag ends of a splendid lode, valued at from 2 to 3 tons per fathom. No stoping has been done below the 10, and the deepest level is the 20 below adit. Down to a depth of 5 fms. below the 10 the lode was as rich as ever, but at this point the north and south lodes formed a junction, and for the next 5 fms. the lode was so disordered that the authorities were decided not to proceed with it any further. The present proprietors having more faith in the splendid lode decided to follow it deeper, and already they have met with sufficient encouragement to extend their new trials. Within 6 ft. below the 20 a fine consolidated lode has been met with, carrying on the foot-wall a course of rich mixture of lead ore over 2 ft. wide. On the adjoining sett, the Cambrian Mine, one of the finest courses of ore ever seen in Cardiganshire, has been lately discovered, and taking these two important discoveries together, the Talybont district bids fair to lead the van in the resuscitation of Cardiganshire mining.

ARSENIC TENDERS.

THE DIRECTORS of the DEVON GREAT CONSOLS COMPANY (LIMITED) hereby give notice that they are prepared to RECEIVE TENDERS (in writing) for their make of WHITE POWDERED ARSENIC in the year 1878, the conditions of which may be had on application to the Secretary.

By order of the Board,
ALEX. ALLEN, Secretary.
134, Gresham House, Old Broad-street, London,
1st November, 1877.

C. H. WALKER AND CO.,
MINING AGENTS AND ENGINEERS,
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WANTED, a PARTNER, with some capital, to WORK COPPER (10 to 20 per cent.), NICKEL (2 to 3 per cent.), PLUMBAGO and GALENA MINES, near the sea, in SOUTH NORWAY.
Apply to "C. W.," care of Mr. Frith, Stationer, No. 172, Adrian-terrace, Brompton.

WANTED, ONE OR MORE GENTLEMEN, with about £1,000 to £2000, to ASSIST in DEVELOPING a MINE with GOOD DEPOSITS of ORE in VIEW, which can only be profitably taken away by another 10 fms., and driving levels to come under the deposits. The sett is extensive, and is surrounded by most productive mines.
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Capital £20,000, in Shares of £1 each.

Full details concerning the property to be worked by this company may be expected in next week's *Mining Journal*. Meanwhile prospectuses and all necessary particulars may be had at the offices of the company, where samples of the ore may be seen.

SECRETARY—MR. WILLIAM WARD.

OFFICES—CROSBY HOUSE, LONDON.

SOME GENTLEMEN CONNECTED with a VALUABLE SILVER LEAD PROPERTY in SOUTH-EAST CORNWALL, and are about to bring out the same as a Limited Company, are desirous of MEETING with a London Gentleman to ACT as SECRETARY.

Address at once to "Devonian," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

COAL AGENCY.—A FIRM OF COAL MERCHANTS, near London, wishes to REPRESENT a GOOD COLLIERY in both HOUSE and GAS QUALITIES. Being practically engaged in gas-making, they would be able to push gas coals, and are prepared to undertake commissions for anything used in gas manufacture.

Address, "C. M.," care of Editor of MINING JOURNAL, 26, Fleet-street, E.C.

COMMISSION AGENCY IN ALMERIA.—An Englishman settled in Almeria is open to REPRESENT ANY HOUSE specially devoted to MACHINERY for TREATING LEAD and CALAMINE ORES; as also to BUY these and IRON ORES on commission for export.

Address, "A. C. W.," MINING JOURNAL Office, 26, Fleet street, E.C.

MINES IN IRELAND.

BONA FIDE CAPITALISTS may learn in what MINES to INVEST WITH SAFETY AND PROFIT on application to "Mining Engineer." First-class references given and required.

Ballydehob, Co. Cork, Ireland, Oct 31.

SADDLE-BACK LEAD MINING COMPANY (LIMITED).

TO BE SOLD, as a going concern, all the INTEREST of the above company in the EXTENSIVE PROPERTY, formerly known as the WOOD-END AND GATEGILL MINES, now known as the SADDLE-BACK MINES, situate near Threlkeld, Keswick, Cumberland, and also the WHOLE of the PLANT upon the said Mines.

These Mines have been very productive of lead, and the prospects for immediate improvement are very great.

Four veins can be seen in the sett, which is upwards of one mile square.

The Mines may be inspected on application to Mr. WM. PORTER, Threlkeld, and full particulars as to lease, terms, &c., obtained from the Secretary, to whom offers must be sent on or before the 1st of December, 1877.

The Directors do not bind themselves to accept the highest or any offer.

Annan, Sept. 26, 1877. WILLIAM DOBBIE, Secretary.

LEAD MINE AND REDDING PITS TO BE LET.

"A strong lode," both in limestone and spar.

Address, "The Rector," Winford, Bristol.

THE COPPER MINERS COMPANY OF ENGLAND.—All SHAREHOLDERS of the above who are dissatisfied with and desirous of an enquiry into the recent sale of the company's property are INVITED to COMMUNICATE with the UNDERSIGNED, who is AUTHORISED to FORM a COMMITTEE of SHAREHOLDERS for this purpose.

HUGH H. ROCHE, 85, GRACECHURCH STREET, E.C.

THE RICHMOND CONSOLIDATED MINING COMPANY (LIMITED).

Capital, 54,000 Shares, £5 each—TWELFTH DIVIDEND.

Notice is hereby given, that the Directors of this company have DECLARED a DIVIDEND of SEVEN SHILLINGS AND SIXPENCE (7s. 6d.) PER SHARE, payable on and after the 10th November instant, at the company's bankers, the Union Bank of London, Princes street, E.C.

And notice is hereby further given, that the Transfer-books of the company will be closed on the 8th, 9th, and 10th November instant.

By order of the Board,

HUBERT AKERS, Secretary pro tem.

Offices, 44, Coleman-street, London, E.C., 6th November, 1877.

CAMBRIAN COPPER AND LEAD MINES, CARDIGANSHIRE.

The undersigned are dealers in FIVE THOUSAND SHARES, or any part thereof, at £2 2s. 6d. to £2 12s. 6d. as "Buyers" or "Sellers." None but principals need apply, and no offer will be entertained unless the numbers printed on the Share Certificates be furnished.

TREDINNICK AND CO., Dealers in Stocks and Shares.

Exchange, 66, Coleman-street, Nov. 9th, 1877.

FOR SALE, price £3000, VALUABLE RED HEMATITE IRON ORE ROYALTY. The ore is of the highest quality, and has been proved for a distance of a quarter of a mile in a straight line. Formation Limestone, under Coal Measures.

Apply to J. FLETCHER PAGEN, C.E., F.G.S., St. Austell, Cornwall.

FOR SALE, a 14-horse power PORTABLE STEAM ENGINE, with link motion reversing gear, also gear to wind and pump.

A 25-horse power PORTABLE.

An 18-horse power VERTICAL STEAM ENGINE, and a 9¼ in. cylinder VERTICAL ENGINE, and combined winding drum.

A 54in. PAN MORTAR MILL, VERTICAL ENGINE, and BOILER.

Apply to—

BARROWS AND STEWART, ENGINEERS, BANBURY.

HYDRAULIC PUMPING ENGINES, TWO, 50 H.P. ENGINES ON SALE—a Bargain.

Apply,—SUN FOUNDRY, LEEDS.

TWENTY-FIVE H.P. PORTABLE ENGINE, almost new, FOR SALE OR HIRE, or on hire with option of purchase, on moderate terms.

ENGINES, BOILERS, AND COLLIERY PLANT, of every description, new and secondhand, always in stock.

J. H. REDDEL AND CO., ENGINEERS, GLASGOW.

ROYAL SCHOOL OF MINES.

MR. WARINGTON W. SMYTH, M.A., F.R.S., will COMMENCE a COURSE of SIXTY LECTURES on MINING, at half-past Three, on MONDAY next, the 12th November, to be continued at the same hour on each succeeding Tuesday, Thursday, Friday, and Monday. Fee for the Course, £4.

TRENHAM REEKS, Registrar.

EMMENS AND CO. (LIMITED),

MINING ENGINEERS AND MANUFACTURING CHEMISTS.

CHIEF OFFICE.

PALMERSTON BUILDINGS, BISHOPSGATE STREET, LONDON, E.C.

MINING DEPARTMENT.—The Management of Mines undertaken, and Technical Reports and Surveys made.

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Associate of the Royal School of Mines,

ANALYST AND ASSAYER.

Reports or Complete Analyses made of Copper, Silver, Lead, Zinc, Tin, and other Ores. ASSAYING TAUGHT.

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ROCK BLASTING, SHAFT SINKING, TUNNELLING, MINING, &c., WITH DRILLING MACHINERY, HIGH-EXPLOSIVES, AND ELECTRICITY.—A SPECIALITY.

WORK SOLICITED AT HOME AND ABROAD.

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MINING ENGINEERS, MINERAL AND METAL MERCHANTS,

29, FENCHURCH STREET, LONDON, E.C.

Mines inspected and reported upon.

MESSRS. J. TAYLOR AND CO.,

MINING ENGINEERS AND INSPECTORS,

56, LONDON WALL, LONDON, E.C.,

Have Agents in England, Scotland, Wales, and on the Continent.

CAPTAIN ABSALOM FRANCIS

MINING AGENT, ENGINEER, AND SURVEYOR

GOGINAN, ABERYSTWITH.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862 and 1867, and of the CHARLOTTE UNITED MINES (LIMITED).—Notice is hereby given, that a PETITION for the WINDING-UP of the above-named company by the Court was, on the 31st day of October instant, presented to the Vice-Warden of the Stannaries by John Reynolds, Philip Tonkin, James Williams, Joseph Carveth, James Tonkin, and James Tregellas, all of the parish of St. Agnes, within the said Stannaries, working miners (working as John Reynolds and Pare), and of Francis Mitchell, of the same parish, mine engine driver, respectively, claiming to be creditors of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Princes Hall, in Truro, within the said Stannaries, on Friday, the 23rd day of November instant, at Eleven o'clock in the forenoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioners, or their solicitors, of his intention to do so, such notice to be forthwith forwarded to P. P. SMITH, Esq., Secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same from the petitioners or their solicitors within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 20th day of November instant, and notice thereof must at the same time be given to the petitioners or their solicitors. HODGE, HOCKIN, AND MARRACK, Truro, Cornwall.

(Solicitors for the Petitioners).

Dated Truro, November 2nd, 1877.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACTS, 1862 and 1867, and of the EAST ROCKS HEMATITE IRON ORE COMPANY (LIMITED).—Notice is hereby given, that a PETITION for the WINDING-UP of the above-named company by the Court was, on the 31st day of October last, presented to the Vice Warden of the Stannaries by William Arundel Oatey and John Martyn, carrying on business at Wadebridge, within the said Stannaries, as General Merchants, under the style of "Oatey and Martyn," claiming to be creditors of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, at Truro, within the said Stannaries, on Friday, the 23rd day of November instant, at Ten o'clock in the forenoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioners or their solicitors, of his intention to do so, such notice to be forthwith forwarded to P. P. SMITH, Esq., Secretary to the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioners or their solicitors, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 20th day of November instant, and notice thereof must, at the same time, be given to the petitioners, or their solicitors. HODGE, HOCKIN, AND MARRACK, Truro, Cornwall

(Solicitors for the Petitioners).

Dated Truro, November 3rd, 1877.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862 and 1867, and of the NEW CHIVERTON MINING COMPANY (LIMITED).—ALL CREDITORS or CLAIMANTS of the above-named company who have not received notice from the Official Liquidator thereof, that their claims have been already admitted, are hereby required to COME IN and PROVE THEIR SEVERAL DEBTS OR CLAIMS, at the Registrar's Office, Truro, on Wednesday, the 14th day of November inst., at Eleven o'clock in the forenoon, or, in default thereof, they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such proof. And for the purpose of such proof, they are to attend in person, or by their solicitors or competent agents, at the place and time above mentioned.

FREDERICK MARSHALL, Registrar.

Dated Registrar's Office, Truro, the 5th day of Novmeber, 1877.

IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1867, AND IN THE MATTER OF THE ILLOGAN TIN AND COPPER MINING COMPANY (LIMITED).

ILLOGAN TIN AND COPPER MINES, And a SMALL FARM, ILLOGAN, CORNWALL.

MESSRS. HANCOCK AND SONS have received instructions to SELL, BY PUBLIC AUCTION, on Thursday, the 15th day of November inst., at Twelve o'clock at noon precisely, on the mine, all that FARM, with account house and outbuildings, comprising 7A. 2R. 28P., held on three lives, aged respectively 32, 27, and 23 years.

The MACHINERY and MATERIALS comprise, in part—ONE 60 in. cylinder PUMPING MACHINE, 60 ft. shears, horse whim, 3 crab winches, ladders, 14 in. capstan rope, about 2½ tons, which may be seen at Capt. R. Pyror's, Redruth; railroad iron; single, double, and treble blocks; chain, 11 large faggotted iron strapping plates, useful iron, tram wagons, kibbles, anvils, vice, cranes, and numerous other articles used in mining; also the account-house furniture.

The sale of the machinery and materials at 12·30 P.M.

Further information can be had on application to ALEXANDER KERLY, Esq., Solicitor, 14, Great Winchester street, London; FREDERICK WARWICK, Esq., the Liquidator of the said company, 2, Bucklersbury, London, E.C., and at 17, Somerset-place, Swansea; or to HANCOCK and SONS, the Auctioneers, St. Austell, Cornwall.

Dated Sydney-place, St. Austell, 25th October, 1877.

TO IRONMASTERS, COLLIERY PROPRIETORS, MILLERS, AND OTHERS. CASTLE MILLS, SHREWSBURY.

MR. ALFRED MANSELL has received instructions to SELL, BY AUCTION, on Friday next, November 16th, 1877:—

ONE 40 horse power condensing BEAM ENGINE.

Cornish BOILER, 31 ft. long, 8 ft. 6 in. diameter, with two tubes, 3 ft. 3 in. diameter, and complete with necessary fittings.

ONE 30 horse power condensing BEAM ENGINE.

Cornish BOILER, 33 ft. 6 in. long, 8 ft. diameter, with two tubes, 3 ft. diameter, complete with all necessary fittings.

Both the above Engines and Boilers are in good working condition, of first class workmanship, being constructed by eminent makers, and are in every way adapted for colliery, forge, or milling purposes.

New Cornish BOILER, 30 ft. long by 6 ft. 6 in. diameter, of best Coalbrookdale plates, ⅝ in. and 7-16ths in. thick, with two tubes, 2 ft. 3 in. diameter, plates 7-16ths in. thick, each fitted with six Galloway's patent cone tubes, wrought iron dome, 3 ft. diameter by 3 ft. 6 in. high, and complete with stand pipe, steam tap, safety valves, and whistle, mounted on patent economic bed. Boiler has been tested by hydraulic pressure to 100 per square inch.

NINE PAIRS of Patent Balance French BURR MILL STONES, 4 ft. diameter, in excellent condition, and mounted on strong cast iron frames, with all the most recent appliances.

The Stones will be sold in Lots to suit purchasers.

200 ft. of TURNED SHAFTING, from 1½ in. to 4 in. diameter.
50 PEDESTALS and BRASSES, from 1½ in. to 6 in bore.
50 TURNED PULLEYS, from 6 in. to 2 ft. 6 in diameter.
45 iron MITRE and SPUR WHEELS, some with wood cogs, from 9 in. to 4 ft. diameter.
Number of WALL BOXES and HANGING BRACKETS, complete, with pedestals and brasses.
Quantity of cast iron STEAM PIPING and VALVES.
400 LEATHER BELTING, from 2 in. to 4 in. wide.
Large quantity of WOOD TROUGHING, and spouts.

Together with other articles used in Flour Mills.

The whole of the above Lots adjoin the canal, and are within three minutes walk of the London and North-Western and Great Western Railway Goods Stations, so that purchasers will have little difficulty in removing them.

Catalogues and further particulars may be obtained of Mr. ALFRED MANSELL, Shrewsbury; or of Mr. THOMAS CORBETT, Perseverance Ironworks, Shrewsbury.

CARNARVONSHIRE, NORTH WALES.

IMPORTANT TO CAPITALISTS, QUARRY PROPRIETORS, AND OTHERS.

TENDERS ARE INVITED FOR THE CASTELL CIDWEN SLATE QUARRY, situated near Quellyn Lake, on the road from Carnarvon to Beddgelert, and within a few hundred yards of the Quellyn Station on the Narrow-gauge Railway (recently opened).

The vendors have a lease for 50 years, in which is reserved to the lessor a royalty of 1-16th, and a minimum rent of £100 per annum.

The lease comprises an area of 443A. 3R. 7P., with power to pass over adjoining lands the property of the lessor.

The slate beds are rich, and of superior quality.

The workings proved the existence of a most superior vein, the rock having been developed to a considerable depth.

There are also two other veins running parallel to this, which are likely to produce both slab and slates.

The tip is into the lake, which is deep at the point, and is not surpassed by any in Wales.

It was extensively opened out at a large outlay when under the disadvantage of six miles cartage from a railway, and it was clearly proved that it forms part of the great vein running from the far-famed Penrhyn Quarries through the Llanberis Quarries to the Nantlle Vale.

The purchaser of the quarry can have the option of taking the late manager's house, adjoining the Quellyn Station, for the unexpired term of 40 years, at a very low rental. A tramway could be made at a trifling cost connecting the quarry with the Narrow gauge Railway.

Mr. ROBERTS, of the Snowden Range Hotel, will show the premises.

Further particulars may be had on applying to W. LIPSCOMBE, Esq., Beech Lawn, Heath, Wakefield, to whom all tenders are to be addressed.

FOR SALE, at NEW PEMBROKE MINE, CORNWALL.—An excellent 80 in. cylinder PUMPING ENGINE, with FOUR good 12 ton BOILERS.

25 in. DRAWING ENGINE, and TWO BOILERS.
TWO SPARE BOILERS.
THREE IRON STAMPS AXLES.
100 fathoms FLAT RODS, 3½ inch.
A quantity of ROD PLATES and other MATERIALS.

Apply to Mr. JOHN POLKINGHORNE, PAR OFFICE, PAR STATION.

MINERALS.

A COLLECTION WILL BE SOLD, which partly consists of the MOST RARE SIBERIAN SPECIMENS.

Enquire at—

F. A. REICHARDT, St. Petersburgh, Russia.

S. T. SHUTTLEWORTH,

PATENTEE OF THE IMPROVED APPARATUS FOR PREVENTING INCRUSTATION IN BOILERS, &c.

MANUFACTURER OF SUPERIOR

GUN METAL STEAM COCKS, VALVES, BOILER MOUNTINGS,

And CAST IRON STEAM and SAFETY VALVES, with GUN METAL SEATS.

ALL ORDERS PROMPTLY EXECUTED.

LONDON OFFICE,—51, BISHOPSGATE STREET WITHIN, E.C.

VALVES AND STEAM COCKS.

Cast-iron Steam Valve, with Gun Metal Seats, new and improved pattern. (with flanges.)

(Screw Gland.) Gun Metal *Screw* Gland Steam Cock (black), shell pattern, female ends.

(Pin Gland.) Gun Metal *Pin* Gland Steam Cock (black), shell pattern, female ends—

Prices—	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
	2s. 8d.	3s. 4d.	4s. 6s.	9s. 6d.	12s. 6d. 21s. 6d. 32s. each.

(Screw Bottom.) Gun Metal Screw Bottom Steam Cock (black), shell pattern, female ends, or male and female ends—

Prices—	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
	2s. 3d.	3s. 3d.	4s. 6d. 8s. 6d.	12s.	17s. 6d. 26s. each.

(London Pattern.) Gun Metal Steam Cock, London shell pattern, polished bright, male and female ends; the heaviest in the trade—

¼ in., 4s. 6d.; ¾ in., 7s.; 1 in., 10s.; 1¼ in., 15s.; 1½ in., 22s.; 2 in., 36s. each.

Gun Metal Steam Valves, brass or iron wheels; improved, screwed female ends—

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in. 2¼ in. 2½ in. 3 in. 3½ in. 4 in.
4s. 6d. 6s. 6d. 8s. 6d. 11s. 6d. 14s. 22s. 6d. 35s. 48s. 60s. 80s. 120s. each.

The same with Flanges—

¼ in., 7s.; ¾ in., 8s.; 1 in., 12s.; 1¼ in., 17s. 6d.; 1½ in., 20s.; 2 in., 32s. 6d. each

Gun Metal Ground Steam Union Joints—

¼ in. ⅜ in. ½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
2s. 6d. 2s. 9d. 3s. 4s. 5s. 6d. 7s. 6d. 10s. 6d. 16s. 6d. each.

Gun Metal Clack or Back Pressure Valve for Feed Pipes from Pumps or Injectors to Boilers—

⅜ in., 4s.; ½ in., 4s. 6d.; ¾ in., 6s.; 1 in., 8s. 6d.; 1¼ in., 11s. 6d.; 1½ in., 14s. each.

Gun Metal Stuffing Box, Expansion Joints for long lengths of Piping—

½ in., 4s.; ¾ in. 6s.; 1 in., 8s.; 1¼ in., 11s.; 1½ in., 14s.; 2 in., 21s. each.

Gun Metal Safety Valve, with Lever—

½ in., 6s.; ¾ in., 8s.; 1 in., 10s.; 1½ in., 12s. 6d.; 1½ in., 15s.; 2 in., 30s. each.

Gun Metal Steam Whistle—

1¼ in., 9s. 6d.; 2 in., 12s.; 2½ in., 18s.; 3 in., 25s.; 3½ in., 33s.; 4 in., 40s. each.

Single Tallow Cock—

1½ in. 2 in. 2½ in. 3 in. 4 in. diameter of Globe.
4s. 6d. 6s. 6d. 8s. 6d. 12s. 6d. 17s. 6d. each.

Double Tallow Cock—

1½ in. 2 in. 2½ in. 3 in. 3½ in. 4 in. diameter of Globe.
7s. 9s. 6d. 12s. 14s. 16s. 18s. 24s. each.

Gun Metal Throttle Valves, screwed for iron pipe—

¾ in., 6s. 6d.; 1 in., 9s. 6d.; 1¼ in., 14s.; 1½ in., 19s. 6d.; 2 in., 33s. each.

Gun Metal Pet Cocks, with cleaning screw—

⅜ in., 3s. 11d.; ½ in., 4s. 5d.; ⅝ in., 6s.; ¾ in., 7s.; 1 in., 10s. each.

Gun Metal Pet Cock—

⅜ in., 3s. 8d.; ½ in., 4s. 6d., ¾ in., 6s. 6d. each. Screwed.

Gun Metal Blow-off Cocks—

¾ in., 7s. 6d.; 1 in., 10s. 6d.; 1¼ in., 14s. 6d.; 1½ in., 19s.; 2 in., 33s. each.

GUN METAL WATER GAUGE MOUNTINGS.

Set of Gun Metal Gauge Mountings, ebony handles, ordinary pattern.

½ in glass ... Per set 16s.
Ditto ditto ditto ⅝ in. glass 23s.
Ditto ditto ditto ¾ in. „ 30s.

Set of Gun Metal Water Gauge Mountings, with solid bottom cocks and gun metal packing rings ground on to top of plugs, thus preventing the possibility of leakage, with back nuts and cleaning screws; gun metal handles, bored for either ½ in. or ⅝ in. glass ... 31s.

Set of Gun Metal Water Gauge Mountings, similar to the above, but with gun metal flanges, bored for ½ in. or ⅝ in. glass ... 34s.

Set of magnificent Gun Metal Water Gauge Mountings, very heavy, with solid bottom cocks, as above, with cleaning caps, back nuts, &c., &c., bored for either ⅝ in. or ¾ in. glass ... 44s.
Ditto ditto ditto bored ⅞ in. glass ... 46s.

Set of Gun Metal Water Gauge Mountings, with screwed bottom, brass handles, back nuts, and cleaning screws, bored for ½ in., ⅝ in., or ¾ in. glass ... 27s.

Set of Gun Metal Gauge Mountings, similar to the above, but lighter, and bored for ½ in. or ⅝ in. glass ... 23s.

Set of Gun Metal Water Gauge Mountings, similar to the above, but lighter, and bored for ½ in. glass. These are suitable for Agricultural Engines 18s. 9d.

Set of Gun Metal Gauge Mountings, with hollow plugs, upon Needham's principle (suitable for locomotives), bored for ⅝ in. or ¾ in. glass ... 36s.

Set of "Valve" Gun Metal Gauge Mountings (¼ turn to blow off), with back nuts and ebony handles, bored for ½ in. or ⅝ in. glass ... 38s.

BEST GREEN GAUGE GLASS TUBES.

Inches long.	½ in. s. d.	⅝ in. s. d.	¾ in. s. d.	⅞ in. s. d.	1 in. outside diam. s. d.
12	3 9	4 6	5 4	6 8	8 0 per doz.
13	4 0	5 0	6 0	7 4	8 8 „
14	4 3	5 6	6 8	8 0	9 4 „
15	4 6	6 0	7 4	8 8	10 0 „
16	4 9	6 6	8 0	9 4	10 8 „
17	5 0	7 0	8 8	10 0	11 4 „
18	5 3	7 6	9 4	10 8	12 0 „
19	5 6	8 0	10 0	11 4	12 8 „
20	5 9	8 6	10 8	12 0	13 4 „
21	6 0	9 0	11 4	12 8	14 0 „
22	6 3	9 6	12 0	13 4	14 8 „
23	6 6	10 0	12 8	14 0	15 4 „
24	6 9	10 6	13 4	14 8	16 0 „

Steam Packing, Asbestos, Soapstone, Core, Blacklead, and all other kinds kept in Stock.

STEAM PRESSURE and VACUUM GAUGES, Bourdon's and other Makers.
ANTIFRICTION METAL—Babbitt's, Fenton's, and Kingston's.
LUBRICATORS—Ramsbottom's, Roscoe's, and NEEDLE, &c.
Sole Maker of HOW'S PATENT SALINOMETERS and HYDROMETERS for Marine Boilers.
HYDROMETERS in Brass or Glass.
THERMOMETERS for SALINOMETERS and other purposes.
STEAM ENGINE INDICATORS.
HAMMERS, RATCHET BRACES, STOCKS, and DIES for either Whitworth's or Gas Threads.
DUDGEON'S PATENT TUBE EXPANDERS and HYDRAULIC JACKS.
LATHES, DRILLING, PUNCHING, and SHEARING Machines.
PORTABLE and FIXED ENGINES, and all kinds of BOILERS, WATER HEATERS, &c.
LEATHER MACHINE BELTING, HOSE, &c.
GREENE'S and other BELL FASTENINGS, OIL FEEDERS, NEEDLE LUBRICATORS and PISTON RINGS.
BOILER COMPOSITION, COTTON WASTE, and STEAM PACKING, of all kinds.
WHEELS, AXLES, PULLEYS, and SHAFTING.
VICES, BENCH, SWIVEL and PARALLEL, and every kind of Engineering requirement for Shop or Engine Room.
GUN METAL and other CASTINGS made to DRAWINGS to any SPECIFICATION submitted.
SHARP STEWART'S INJECTORS, A. FRIEDMANN'S ditto, GRESHAM and CRAVEN'S ditto, and other Makers.
DONKEY PUMPS, &c.

AGENT FOR EZARD'S PATENT DUPLEX GAS IRONS.

Quotations given if required for any quantity of the above articles.

Special terms to Merchants, Shippers, and the Trade.

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Just published, in 8vo, price 31s. 6d. half-bound.

THE ENGINEER'S VALUING ASSISTANT, A PRACTICAL TREATISE ON THE VALUATION OF COLLIERIES AND OTHER MINES.

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By JOHN POSTLETHWAITE.

Apply to the Author, Eskin-place, Keswick, Cumberland.

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ARCHER AND HARPER,

PROVIDENCE BOLT AND NUT WORKS, THE GREEN, DARLASTON,

Manufacturers of all kinds of Shipbuilders', Engineers', Coach, Wagon, and Fish Bolts: Coach Screws; Railway Spikes and Brobs; Hot-pressed and Forged Nuts, Rivets, Washers, &c., &c.

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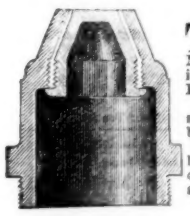

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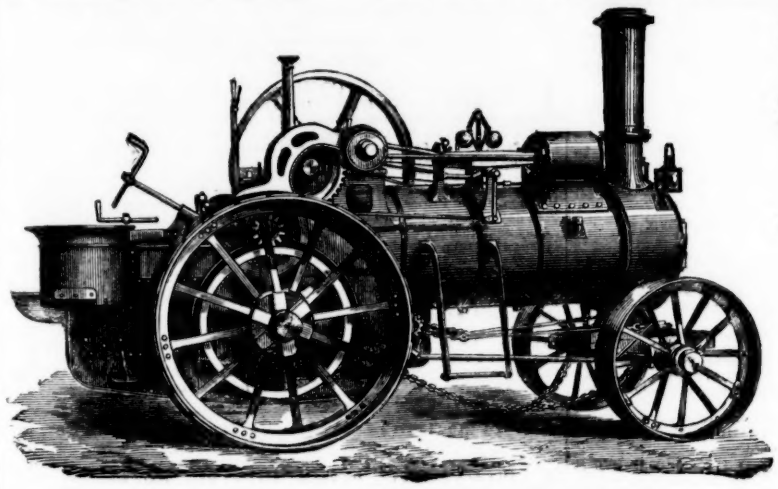

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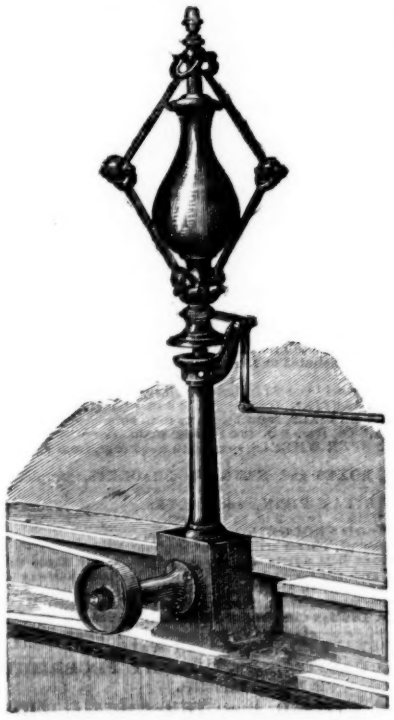

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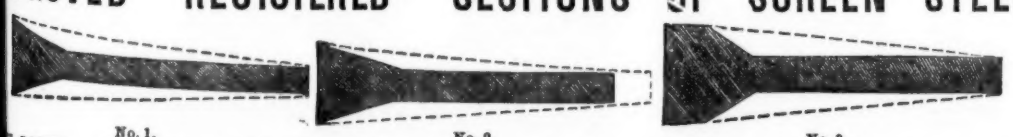

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1 00	Alderley Edge, c, Cheshire*	10 0 0	—		12 11 8	0 5 0	Jan. 1876
30000	Bampfylde, c, i, mn., Devon*	1 0 0	—		0 2 0	0 2 0	June 1873
4000	Brookwood, c, Buckfastleigh	1 16 0	1	½ 1	3 16 0	0 2 0	Nov. 1877
2000	Bryn Alyn,* l, Denbigh. (10l. sh.)	8 0 0	—		0 7 0	0 7 0	Jan. 1875
6400	Cashwell, l, Cumberland*	2 10 0	2¼	2 2¼	1 9 6	0 2 0	Aug. 1876
1000	Carn Brea, c, t, Illogan†§	36 7 6	50	50 52½	308 0 0	1 0 0	Feb. 1874
2450	Cook's Kitchen, t, Illogan†§	23 17 3	2¾	3½ 4½	11 17 0	0 7 6	Jan. 1873
10240	Devon Gt. Consols, c, Tavistock†*	1 0 0	3	2½ 3	116 15 0	0 5 0	July 1877
4296	Dolcoath, c, t, Camborne	10 14 10	40	35 40	111 16 3	0 5 0	Sept. 1877
5000	East Black Craig,* l, Scotland	5 0 0	—		0 10 0	0 10 0	Feb. 1877
300	East Darren, l, Cardiganshire	32 0 0	—		235 10 0	1 0 0	Aug. 1876
6400	East Pool, t, c, Illogan	0 9 9	10	9½ 10	15 2 3	0 2 0	June 1877
40000	Glasgow Cara., c* [30,000 £1 p., 10,000 15s. p.]		1¼	1 1¼	0 12 10	0 0 6	Mar. 1877
7500	Gorsedd and Merllyn Cons., l, Flint	2 10 0	5¾	5 6	0 5 0	0 5 0	Aug. 1877
15000	Great Dyliffe,* l, Montgom	4 0 0	2	1½ 2	0 2 6	0 2 6	Apr. 1876
15000	Great Laxey, l, Isle of Man*	4 0 0	21½	21½ 22½	22 13 0	0 10 0	Oct. 1877
615	Gt. Retallack, l, bl, Perranzabuloe	5 18 6	—		0 1 6	0 1 6	May 1876
25000	Gt. West Van, l, Cardigan,* pref.	2 0 0	⅜	¼ ⅜	0 2 0	0 [illegible] 0	Aug. 1874
6400	Green Hurth, l, Durham*	0 6 0	3	2¾ 3	1 15 0	0 3 0	Aug. 1877
20000	Grogwinion, l, Cardigan*	2 0 0	3¼	3¼ 3¾	0 12 0	0 4 0	Feb. 1877
9830	Gunnislake (Clitters'), t, c	5 5 0	2¾	2½ 2¾	0 13 9	0 1 0	Oct. 1876
1024	Herodsfoot, l, near Liskeard†	8 10 0	6½	6 6½	62 5 0	0 15 0	Oct. 1872
18000	Hingston Down, c, Calstock*†	0 4 0	¼	⅛ ¼	0 1 0	0 1 0	Nov. 1875
60000	Holmbush, a, c, s-l, Callington*	1 0 0	2	1¾ 2	0 4 0	0 0 6	Aug. 187[illegible]
280	Isle of Man, Isle of Man*†	25 0 0	—		82 5 0	0 10 0	Feb. 1876
20000	Leadhills,* l, Lanarkshire	6 0 0	5½	4¾ 5	0 12 0	0 6 0	Oct. 1877
400	Lisburne, l, Cardiganshire	18 15 0	70	65 70	582 10 0	1 0 0	July 1877
14000	Llanidloes,* l, Montgomery	3 0 0	1⅛	¾ 1¼	0 9 0	0 4 6	Nov. 1876
5120	Lovell, t, Wendron	0 16 0	2½	2 2½	0 17 6	0 1 6	Jan. 1874
9000	Marke Valley, c, Linkinhorne	5 3 6	¾	⅝ ¾	7 15 0	0 2 0	Jan. 1876
9000	Minera Mining Co., l, Wrexham*	5 0 0	18	16 18	67 8 2	0 3 0	Oct. 1877
20000	Mining Co. of Ireland, cl, c, l*	7 0 0	—		23 15 0	0 3 6	Jan. 1877
444	North Busy, c, Chacewater	3 9 6	5	4 5	1 10 0	1 0 0	July 1877
10289	North Hendre, l, Wales	2 10 0	—		1 12 6	0 2 6	Aug. 1877
6000	Pedn-an-drea Con., t, Redruth	0 8 6	7⅛	7½ 7¾	0 9 0	0 9 0	June 1877
5000	Penhalls, t, St. Agnes	3 2 6	⅜	¼ ⅜	2 13 6	0 2 0	July 187
6000	Pennant, l, bar, North Wales*	5 0 0	5¼	4½ 5¼	0 5 0	0 5 0	Mar. 1877
45193	Penstruthal,* t, c, Gwennap	2 0 0	⅜	¼ ⅜	0 2 8	0 0 8	Nov. 1875
12000	Phœnix, & W. Phœnix, t, c, Link.§	5 7 3	5	4½ 5	2 9 6	0 4 0	Nov. 1872
16000	Prince Patrick,* s-l, Holywell	1 0 0	2¼	1¾ 2¼	0 14 0	0 1 3	Jan. 1876
10000	Red Rock,* l, Cardigan	2 0 0	2¼	1¾ 2¼	0 2 0	0 2 0	July 1877
12000	Roman Gravels, l, Salop*	7 10 0	8	7⅛ 8	7 10 6	0 8 6	May 1877
512	South Caradon, c, St. Cleer	1 5 0	100	85 95	739 10 0	1 0 0	Oct. 1877
6123	South Condurrow, t, c, Camborne‡	6 5 6	9½	9¼ 9¾	2 18 0	0 6 0	Sept. 1877
12000	St. Harmon,* l, Montgom	3 0 0	3	2½ 3⅛	0 6 0	0 3 0	July 1877
1[illegible]000	So. Pr. Patrick,* s-l (8000 sh. issued)	1 0 0	—		0 7 0	0 1 0	Oct. 1875
1[illegible]000	Tankerville, l, Salop*	6 0 0	5¼	5 5¼	4 17 0	0 5 0	Dec. 1876
6000	Tincroft, c, t, Pool, Illogan†	9 0 0	16	17 19	50 8 6	0 5 0	May 1877
15000	Van, l, Llanidloes*	4 5 0	34	32 34	22 8 6	0 12 0	Oct. 1877
3900	W. Chiverton, l, Perranzabuloe†	12 10 0	14½	13½ 14½	55 0 0	0 10 0	Jan. 1877
1783	West Poldice, St. Day	10 0 0	13	11 13	1 19 0	0 4 0	July 1876
512	West Tolgus, c, Redruth	95 10 0	71	69 71	23 15 0	1 10 0	Oct. 1877
2048	West Wheal Frances, t, Illogan	28 1 3	5	4½ 5	3 12 6	0 5 0	Oct. 1872
12000	West WyeValley,* l, Montgom	3 0 0	3½	3 3½ ed.	0 9 0	0 3 0	May 1877
1024	Wh. Eliza Consols t, St. Austell	18 0 0	—		15 10 0	1 10 0	Oct. 1877
2048	Wheal Jane, t, Kea	2 13 10	1¾	1¾ 1⅞	8 5 0	0 5 0	July 1875
4295	Wheal Kitty, t, St. Agnes	5 4 6	2	2¼ 2¾	11 19 6	0 2 6	Dec. 1874
25000	Wh. Newton, a, c, s, t, Calstock*	1 0 0	—	5 5½	0 4 6	0 4 0	June 1877
80	Wheal Owles, t, St. Just§	86 5 0	70	65 70	522 10 0	4 0 0	Aug. 1872
6000	Wheal Prussia, t, Redruth	2 0 0	4¾	6¼ 7	0 4 0	0 1 0	July 1877
25000	Wicklow, s, sul, i, Wicklow	2 10 0	—		52 9 0	0 2 6	Mar. 1872
10000	Wye Valley, l, Montgomery*	3 0 0	3	3 3½	0 10 6	0 4 6	Oct. 1876

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35500	Alamillos, l, Spain*†	2 0 0	2	1½ 2	1 18 3	0 1 0	Oct. 1877
80000	Almada and Tirito Consol., s*†	1 0 0	⅜	⅛ ⅜	0 6 3	0 1 0	May 1876
20000	Australian, c, South Australia†	7 7 6	2	1½ 2	0 19 6	0 1 6	July 1877
10000	Battle Mountain,* c, (6240 part pd.)	5 0 0	—		0 10 0	0 10 0	Nov. 1872
15000	Birdseye Creek, g, California*	4 0 0	¾	½ ¾	0 14 0	0 2 6	June 1874
12320	Burra Burra,* c, So. Australia	5 0 0	—		70 0 0	0 10 0	Oct. 1872
20000	Cape Copper Mining,*† So. Africa	7 0 0	37	34 36	28 15 0	1 0 0	June 1877
40000	Cedar Creek, g, California*	5 0 0	⅝	⅜ ⅝	0 5 0	0 2 6	June 1873
35000	Cesena Sul. Co., Romanga, Italy*	10 0 0	—		0 10 6	0 3 0	Aug. 1877
15000	Chicago, s, Utah*	10 0 0	1⅝	2¼ 3	2 8 0	0 4 0	Nov. 1876
65000	Colorado United, s-l, Colorado*†	5 0 0	2	1½ 2	0 13 6	0 4 0	Jan. 1876
10000	Copiapo, c, Chili* (£20 shares)	16 15 0	—		7 11 5	0 3 0	May 1877
100000	Don Pedro North del Rey*†	0 16 0	⅝	⅜ ½	2 5 9	0 2 0	Mar. 1872
22500	Eberhardt & Aurora, s, Nevada*†	10 0 0	7¾	6¾ 7¼	1 8 0	0 3 0	Dec. 1876
70000	English & Australian, c† S. Aust.	2 10 0	1½	1¼ 1⅜	2 15 9	0 1 0	Mar. 1876
30600	Flagstaff, s, Utah*	10 0 0	3	2 2½	4 2 0	0 5 0	July 1873
25000	Fortuna, l, Spain*†	2 0 0	5¼	5½ 6	6 14 10	0 6 8	Oct 1877
55000	Frontino & Bolivia, g, New Gran.*†	2 0 0	3⅛	2¾ 3¼	0 1 0	0 1 0	June 1876
30000	Gold Run, hyd.	1 0 0	—		0 2 4	0 0 4	Oct. 1872
68000	Kapunda Mining Co. Australia†	1 3 0	—		0 2 4	0 0 6	June 1873
20000	Last Chance, s,* Utah	5 0 0	1	½ ¾	0 14 0	0 2 0	July 1873
15000	Linares, l, Spain*†	3 0 0	6¾	6½ 7	17 3 10	0 6 8	Oct. 1877
85000	London and California, g*†	2 0 0	¾	⅜ ¾	0 1 0	0 1 0	July 1875
7837	Lusitanian, Portugal*† (£5 sh.)	3 10 0	—		1 11 6	0 1 6	Mar. 1873
5000	Mamm Copperopolis of Utah, c, s	10 0 0	—		0 5 0	0 5 0	Dec. 1872
5000	Mountain Chief, s, Utah*	10 0 0	—		0 4 0	0 4 0	Jan. 1873
10000	Pontgibaud, s-l, France†	20 0 0	28	26 28	23 1 1	1 11 1	Nov. 1876
100000	Port Phillip, g, Clunes*†	1 0 0	⅝	½ ⅝	1 9 0	0 1 0	Sept. 1877
54000	Richmond Consols, s, Nevada*†	5 0 0	8½	9 9½	3 16 6	0 7 6	Nov. 1877
40000	Santa Barbara,* g, Brazil	0 10 0	2	1¾ 2	0 3 9	0 1 3	May 1877
120000	Scottish Australian Mining Co.*†	1 0 0	2¼	1¾ 2	15 per cent.		June 1877
80000	Scottish Austral. Mining Co., New	0 5 0	⅜	⅜ ½	15 per cent.		June 1877
112800	Sierra Buttes, g, California*†	2 0 0	1¾	1½ 1¾	1 18 0	0 2 0	Oct. 1877
60000	South Aurora, s, Nevada*	5 0 0	¼	⅛ ¼	0 14 2	0 2 0	Nov. 1873
£253000	St. John del Rey*† (£5 stock & multiples dealt in)			330 340	½ year ... 20 p. ct. for Dec. 1876		
20000	Tolima, g, s* So. America	5 0 0	—		0 11 6	0 6 6	May 1874
25000	Victoria (London)*, g, Australia	1 0 0	¾	⅝ ¾	0 11 10½	0 0 10	Aug. 1876
15000	Western Andes, s,* New Granada	5 0 0	—		12 per cent. per an.		July 1876
21000	W. Prussian (5500 pref. sh. 10l. pd)	10 0 0	11¼	10¾ 11¼	1 4 0	0 8 0	April 1877

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Last Call.
5000	Anguilla Phosphate, West Indies (4000 issued)	10 0 0	—		Fully pd.
12000	Argentine, g, Argentine Republic	5 0 0	3	2 3	Fully pd.
3000	Bellavista, s, Peru* (£10 shares)	10 0 0	—		Fully pd.
20000	Blue Tent, hyd., California	5 0 0	3¼	3 3¼	Fully pd.
49935	Chontales, g, s, Nicaragua*†	2 0 0	⅜	¼ ⅜	Fully pd.
16000	Condes of Chili, s-l	5 0 0	3	2½ 3	Fully pd.
30000	English Australian, g, Victoria*	0 10 0	⅞	⅝ ⅞	Fully pd.
35000	Excelsior Hydraulic Gold Washing Co., California*	6 0 0	—		Fully pd.
100000	Exchequer, g, s, California*†	1 0 0	½	¼ ½	Dec. 1871
40000	Holcombe Valley, g,* California	1 0 0	—		Fully pd.
8000	Hornachos,* s-l, Spain	10 0 0	13	12 13	July 1873
12000	Hultafall,* l, bl, Orebro, Sweden	5 0 0	6	5½ 6	Fully pd.
12000	Hunter Consolidated, s-l, Utah	6 0 0	6	5½ 6	Fully pd.
2[illegible]000	Imperial Brazilian Collieries, Brazil*	5 0 0	—		Fully pd.
[illegible]0000	I. X. L., g, s, California*	1 0 0	⅜	⅛ ⅜	Fully pd.
50000	Javali, g, Nicaragua*	2 0 0	⅜	⅜ ⅝	Fully pd.
3500	La Manche, l, Newfoundland	10 0 0	—		Fully pd.
12000	Lanestosa,* l, z, Viscaya, Spain (£2 shares)	1 15 0	—		Mar. 1876
75000	Malabar, g, Colombia* (67165 issued)	1 0 0	⅜	⅛ ¼	Fully pd.
40000	Malpaso, g, Colombia* (7400 pref. shares, fully paid)	1 0 0	¾	¼ ½	Fully pd.
12000	Menzenberg, c, Honnef, Germany*	5 5 0	—		Fully pd.
4588	New Bensberg, i, l, Germany	5 0 0	—		Nov. 1876
65000	New Quebrada, c, Venezuela*	5 0 0	2	2 2½	Fully pd.
20000	New Zealand Kapanga, g, Coromandel*	5 0 0	1¼	1⅛ 1½	Fully pd.
3000	Oregon,* g, Oregon, U.S. (preference shares)	4 0 0	—		Sept. 1875
50000	Panulcillo, c, Chili*† (£50000 debentures)	4 0 0	2½	1½ 2	Fully pd.
8000	Pestarena United, g, Italy*†	3 0 0	⅜	¼ ⅜	Fully pd.
50000	Providencia and New Rosario, s, Mexico*	1 0 0	—		Fully pd.
50000	Rica, g, Colombia* (40000 issued)	1 0 0	¼	⅛ ¼	Fully pd.
£2,151,000	Rio Tinto,* c, Huelva, Spain	Stock	57	55⅛ 56½	Fully pd.
100000	Rossa Grande, g, Brazil*† (£1 shares)	0 19 0	⅛	⅛	July 1872
30000	Russia Copper, Orenburg and Ufa*†	10 0 0	2¼	1¾ 2¼	Fully pd.
25000	San Pedro, c, Chili*	2 0 0	⅜	⅛ ⅜	Fully pd.
10000	Silver Plume, s, Colorado*	1 0 0	—		Fully pd.
30000	Tecoma, s, Utah*	10 0 0	½	¼ ½	Fully pd.
20000	Thornhill Reef, g, Australia*	1 0 0	—		Fully pd.
43174	United Mexican, s, Mexico*†‡	28 15 3	2	1⅛ 2	May 1875
14000	Utah, g, s-l, Utah*	5 0 0	—		Fully pd.
75000	Yorke Peninsula, c, South Australia	1 0 0	⅜	⅛ ⅜	Fully pd.
40000	Yorke Peninsula, c, South Australia Preference	1 0 0	1	¾ 1	Fully pd.

§ Have made calls since last dividend was paid.

FOREIGN AND MISCELLANEOUS STOCKS, BONDS, LOANS, AND TRUSTS.

	Closing	Prices.
Argentine, 1868, 6 per cent.	70	72
Bolivia, 6 per cent.	24	25
Brazilian, 1865, 5 per cent.	93	95
Chilian, 1866, 7 per cent.	102	104
City of Providence, 5 p.c. coupon bnds	100	102
Egyptian, 5 per cent pref.	54¾	55¼
Do., unified debt, scrip	33	33½
Do., 7 per cent., V.M.L.	67	69
Do., 9 per cent. guar.	74	76
Do., 7 per cent., K.M.L.	42	44

	Closing	Prices.
Foreign and Col. Gov. Trust, 6 p. ct.	65	70
Do., 5 per cent., 2d issue	52	57
Do., 6 per cent., 3d issue	50	55
Do., 1872, 4th issue	45	50
Do., 1873, 5th issue	46	51
Peruvian, 1870, 6 per cent.	12¾	13¼
Do., 1872, 5 per cent	10¾	11¼
Russian, 5½ per cent. L. Mort.	—	
Spanish, Quicksilver Mort., 5 p. ct.	95	97
United States Mort., 6 per cent.	96	98

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last wk.	Clos. pr
40000	Aberdaunant, l, Llanidloes*	1 0 0	—	
10000	Aberystwith,* s-l, Cardigan	5 0 0	—	
80	Albion,* i, Cornwall	—	—	
7800	Alvig. & Burng.,* t, St. Aust.	3 0 0	3	2¾ 3
18000	Ambrose Lake, t, c, Liskeard	1 18 6	—	
12000	Assheton, l, Carnarvonshire*	5 0 0	1¼	¾ 1¼
50000	Ballycummisk,* c, Schull	2 0 0	—	
12000	Bedford United, c, Tavistock	2 0 6	⅜	¼ ⅜
28000	Belstone,* c, Devon (27,000 fy. pd.)	1 0 0	—	
15000	Blaen United,* s-l, Cardigan	1 0 0	—	
3937	Blue Hills, t, c, St. Agnes	3 7 6	—	
30000	Bodidris,* l, bl, Denbighshire	1 0 0	1¼	1 1¼
1000	Bollihope Vale,* s-l, Durham	5 0 0	5¼	5 5½
200	Botallack, t, c, St. Just‡	121 5 0	17½	15 17½
3000	Bowden Hill,* mn	1 0 0	—	
6000	Bradwell Moss Rake	1 0 0	1	⅞ 1
30000	Caldbeck Fells, l, Cumberland*	2 0 0	—	
50000	Cambrian,* s-l, c, Cardiganshire	2 0 0	2¼	2¼ 2¾
3348	Cargoll, s-l, Newlyn‡	6 14 0	2¾	2½ 3
10000	Caron, l, Cardigan*	2 0 0	2½	2¼ 2½
20000	Central Foxdale, l, I. of Man* (2l. sh.)	1 5 0	—	
10000	Central Van,* l, bl, Llanidloes	5 0 0	—	
138	Clementina, l, Llanrwst	20 0 0	—	
7500	Combellack,* t, Wendron	2 0 0	2	1½ 2
6000	Combmartin, s-l, North Devon	0 7 0	¼	1 1¼
24000	Court Grange, s-l (6000 sh. 10s. pd.)	1 0 0	1⅛	1 1¼
20000	Cwm Dwyfor,* c, s-l, Carnarvonsh	0 18 3	—	
65000	Cwm Lanarch,* s-l, Carnarvon	2 0 0	2½	2¼ 2½
3000	Cwmystwith (New) [5l. shares]	4 0 0	—	
512	D'Eresby Mountain, l, bl, Llanrwst	20 0 0	15	15 20
10000	Denbighshire Consolidated, l*	3 0 0	1½	1 1⅛
12000	Derwent,* l, Durham	4 0 0	2	1¾ 2
10000	Dubby Syke, l, Durham*	0 12 6	⅛	⅛
6144	East Caradon, c, St. Cleer‡	2 16 6	1	1¼ 1⅜
4000	East Chiverton, l, Perranzabuloe	6 17 0	3	2½ 3
3000	East Craven Moor, l, Pateley Bridge	10 0 0	11	10 10½
6000	East Goginan, l, Cardigan	2 0 0	—	
18000	East Van, l, Llanidloes*	5 0 0	3½	3½ 4
1722	East Wh. Lovell, t, Helston	8 11 0	1¼	1½ 2¼
20000	Elgar,* s-l, Cardiganshire	1 0 0	1¼	1 1¼
8000	Fronvellan, l, Mont.* [4000 sh. fy. pd.]	1 0 0	—	
3950	Gawton, c, Tavistock	4 5 6	⅜	⅛ ⅜
12000	Glan Clwyd,* l, Gwyddelwern	1 0 0	—	
14000	Glenroy,* s-l, Isle of Man	4 5 0	1	¾ 1
10000	Glyn,* l, Llanidloes	2 0 0	⅜	⅜ ½
12000	Goginan, & Level Newydd, Card., l	2 10 0	—	
100000	Gold, g, Merionethshire	1 0 0	—	
20000	Goreu,* s-l, Carmarthen	1 0 0	1¼	1⅛ 1¼
20000	Gt. E. Foxdale, l, I. of Man (1l. sh)	0 18 0	—	
12000	Great Holway,* l, Flintshire	5 0 0	5½	5 5½
9500	Great Pant-y-Pydew, l, Holywell	2 0 0	—	
6000	Gt. Wheal Eleanor, t, North Bovey	1 0 0	3	2 3
18000	Grosvenor, l, Holywell (£1 sh.)	0 15 0	—	
10000	Harehope Gill,* l, Durham (£1 sh.)	0 5 0	—	
64[illegible]	Harwood,* l, Durham	0 15 0	1	1
5000	Hush Eisteddfod Minera,* l	2 0 0	—	
200	Islay,* l, Scotland	28 0 0	—	
2500	Killaloe, sl, Tipperary‡	1 0 0	—	
5000	Killifreth, t, Chacewater	2 1 0	¼	⅛ ¼
25000	Kingston Con., s-l, Stoke Climsland	1 0 0	—	
	Ditto, preference	1 0 0	⅜	½ ⅝
12000	Ladywell,* l, Salop	2 10 0	1½	⅞ 1½
12000	Ditto, 10 per cent. pref., 1l. each	0 10 0	⅜	½ ⅝
2500	Levant, c, t, St. Just	9 18 6	—	
25000	Llanrhaiadr, l, Montgomery*	2 0 0	—	
6000	Livingstone Consols, t, St. Agnes	0 10 0	—	⅜ ½
30000	Llanrwst,* l, Carnarvon	2 0 0	—	
15000	Llwyn Teify,* s-l, Cardigan	1 0 0	—	
6000	Medlyn Moor, t, Wendron	1 17 4	2	2
3500	Mellanear Copper, Hayle*	2 0 0	2½	2¼ 2½
6500	Ditto	1 15 0	2	1¾ 2
1000	M[illegible], l, Cardigan*	3 0 0	¼	¼ ⅜
11000	Monydd Gorddu, l, Cardigan* (Red.)	5 0 0	2½	1½ 2½
25000	Nant-y-Ronen, s-l, Cardigan*	1 0 0	—	
15000	Nascent Copper*	1 0 0	—	
4525	New Bronfloyd,* l, Cardigan (5l. sh.)	3 10 0	—	
20000	New Consols, s, a (in liquidation)	—	—	
8000	New Dolcoath, t, c, Camborne*	3 0 0	1¾	1¼ 1¾
20000	New East Foxdale, s-l, Isle of Man	0 15 0	—	
16000	New Fowey Consols, t, St. Blazey*	3 0 0	2	1½ 2
1492	New Hendra, t, Breage	3 9 0	—	
3200	New South Merllyn, l, Flint*	2 10 0	1	½ 1
5000	New Wheal Emma, c, Buckfastleigh	2 0 0	—	
4000	North Cornwall, l, Cornwall	5 0 0	5¼	5 5¼
17000	North Laxey,* Isle of Man	2 0 0	⅜	¼ ⅜
2000	North Levant, t, c, St. Just‡	12 2 0	—	
20000	North Prince Patrick,* l, Holywell	1 0 0	...	
5[illegible]6	North Treskerby, c, St. Agnes	4 7 10	—	
2000	North Wheal Towan, t, c, Illogan	1 19 6	—	
2500	Old Tincroft, c, t, Lelant*	4 0 0	4	3 4
6400	Oola Hills,* s-l, Limerick	5 0 0	—	
12000	Pandora,* l, Carnarvon	2 0 0	1⅛	⅞ 1⅛
30000	Panty Mwyn,* l, Mold (8794 iss.)	2 0 0	2	
16923	Parys Mountain,* c, Anglesea	3 0 0	⅛	⅜ ⅝
4000	Pateley Bridge, l, Yorkshire	5 0 0	2½	2¼ 2¾
30000	Perkins Beach, l, Shropshire	1 0 0	1¾	1 1¼
12000	Plynlimmon, l, Llanidloes*	2 0 0	¾	¾
648	Polrose, t, Breage	21 0 0	—	
10000	Port Nigel,* s-l, Carnarvonshire	2 0 0	½	¼ ½
2000	Prideaux Wood, t, Llanivery	5 0 0	—	
5182	Prince of Wales, c, Calstock‡	2 4 0	⅜	⅛ ⅜
6000	Relistian Consols, c, Gwinear	0 10 0	⅝	½ ⅝
15000	Rookhope, l, Durham*	1 10 0	1⅛	1⅛ 1¼
5000	Silvercross,* c, t, Marazion	1 0 0	¾	½ ¾
4200	Snowbrook, s-l, Montgomery	5 0 0	5¼	5⅛ 5¼
[illegible]000	So. Cwmystwith, l, Cardiganshire	2 0 0	3½	3 4
[illegible]000	South Darren, l, Cardigan*	1 10 0	—	
512	South Dolcoath, c, t, Redruth	12 5 0	1⅛	1 1¼
5000	So. Molton Cons., s-l, No. Devon	0 2 0	1	¾ 1
18000	South Roman Gravels, l*	1 10 0	⅝	⅜ ⅝
6000	South Roskear, t, c, Camborne	6 10 0	5	4 5
6000	South Tolcarne, t, c, Camborne	1 14 0	¼	⅛ ¼
937	South Wheal Crofty, c, Illogan	38 10 10	9	8 9
4500	South Wh. Frances, c, Illogan†	7 12 4	3	2½ 3
6000	St. Lawrence, Amal., l, Flintshire*	2 0 0	—	
10000	St. Patrick, l, Halkin, Holywell*	1 0 0	1⅛	1 1⅛
6000	Success, &c., l, Derb. (12,000l. called)	1 0 0	—	
16000	Sunnyside,* l, Durham	2 0 0	2¼	2 2¼
30000	Talybont, s-l, Cardiganshire	1 0 0	1¼	1 1¼
6400	Teesdale,* l, Durham	1 0 0	⅞	¾ ⅞
14000	Teign Valley, l, bar., Bridford	1 0 0	—	
10000	Temple, l, Cardigan*	1 0 0	2¼	1¾ 2¼
10000	Tolgus Consols,* c, Redruth	5 0 0	5½	5 5½
12000	Trebeigh Consols, s-l, St. Ive	0 9 0	⅜	¾ ⅜
6000	Treleigh Wood, t, Redruth	6 1 0	—	
547	Treiyon Consols	15 0 0	⅝	¼ ⅝
12000	Trethellan, s-l, Crantock*	2 0 0	—	
640	Truro*, l, Nerquis, Flintshire	10 0 0	—	
10000	Tyn-y-Fron,* l, Cardigan	1 0 0	1⅛	1 1⅛
20000	Van Consols, l, Llanidloes*	2 10 0	⅝	⅜ ⅝
1000	Vaughan*, l, Cardiganshire	10 0 0	—	
12000	West Assheton, l, Carnarvon	1 0 0	1	¾ 1
6000	West Basset, c, Illogan†‡	6 0 0	2	2 2¼
5500	West Combmartin, s-l, North Devon	1 0 0	⅞	⅜ ⅞
7000	Ditto	0 2 6	¾	½ ¾
3000	W. Craven Moor, l, Pateley Bridge*	10 0 0	11	10 10½
5000	West Godolphin, t, c, Breage	2 10 0	2¼	2 2½
12000	West Goginan,* Cardiganshire	2 0 0	⅜	⅛ ⅜
10000	West Llangynog, s-l, Montgomery	2 0 0	—	
3000	West Mary Ann, l, Menheniot	0 3 6	1	⅞ 1
50000	West Milwr, s-l, Flint	1 0 0	—	
5000	West of England Granite Company	2 0 0	2	2
20000	West Pateley Bridge, l, Yorkshire	1 0 0	2	1¾ 2¼
1000	West Roskear, t, s-l, bl, c, Camborne	2 0 0	17⅛	15 17½
12000	West Tankerville,* l, Salop	3 0 0	⅞	¾ 1
3000	Ditto, 15 per cent pref.	3 0 0	2	1¾ 2
15000	West Treasavean,* c, t, Gwennap	1 0 0	1⅜	1¼ 1⅜
3000	West Wheal Peevor, t, Redruth	0 10 0	—	
600	West Wheal Seton, c, Camborne†	47 0 0	20	13 15
6000	Wheal Agar, c, Illogan	12 0 0	4½	4 4½
512	Wheal Basset, c, Illogan‡	22 2 6	17½	15 20
4000	Wheal Coates, t, St. Agnes	2 0 0	2	1½ 2
2635	Wheal Comfort, c, Gwennap	1 5 0	5	4½ 5
6000	Wheal Crebor, c, Tavistock	4 1 0	2	1¾ 2
5179	Wheal Grenville, c, Camborne*	2 18 6	4	3 3½
12000	Wh. Mary Hutchings,* t, Plympton‡	1 8 6	—	
3000	Wheal Peevor, t, Redruth	7 11 0	6	6 6½
12000	Wheal Russell, c, Tavistock	2 1 6	⅜	¼ ⅜
[illegible]	Wheal Uny, t, c, Redruth	13 15 6	1⅛	1¼ 2
480	White Cliff,* l, Llanrwst	4 0 0	—	

b, blende; cl, coal; c, copper; g, gold; l, lead; s, silver; sl, slate; s-l, silver-lead; t, tin; z, zinc.

* Limited Liability Companies; † quoted on the Stock Exchange; ‡ have paid dividends.

IRON AND COAL COMPANIES.

Shares.	Company.	Paid.
£100	Abbot, John, and Co. [L.]	£75 0 0
15	Albion Steel and Wire Co. [L.]	14 0 0
5	Alltami Colliery Co. [L.]	5 0 0
100	Ashbury Co. [L.]	90 0 0
10	Bagnall, John, and Sons [L.]	10 0 0
10	Benhar Coal Co. [L.]	10 0 0
50	Bilbao Iron Ore Co. [L.]	50 0 0
10	Bilson & Crump Meadow Coll. Co. [L.]	10 0 0
4	Blaen Cwmbach Coal Co. [L.]	4 0 0
50	Blaenavon Iron and Steel Co. [L.]	60 0 0
100	Bolckow, Vaughan, and Co. [L.] A	50 0 0
50	Bowling Iron Co. [L.]	50 0 0
50	Britannia Ironworks [L.]	25 0 0
50	Brown, Bailey, and Dixon [L.]	40 0 0
100	Brown, John, and Co. [L.]	70 0 0
5	Cakemore Colliery Co. [L.]	5 0 0
100	Cammell and Co. [L.]	80 0 0
20	Cannock and Huntington Coal [L.]	6 0 0
10	Cardiff & Swansea St. Coal Co. [L.]	9 0 0
10	Cardigan Steel and Wire Co. [L.]	8 10 0
10	Central Swedish Iron and Steel [L.]	10 0 0
5	Chapel House Colliery	5 0 0
50	Charlton Iron Co. [L.]	50 0 0
50	Chatterley Iron Co. [L.]	45 0 0
10	Chillington Iron Co. [L.]	10 0 0
1	Clee Hill Colliery Co. [L.]	1 0 0
10	Consett Iron Co. [L.]	7 10 0
1	Consett Spanish Ore [L.]	1 0 0
50	Cooke, William, and Co. [L.]	40 0 0
20	Darlington Iron Co. [L.]	12 10 0
50	Davy Brothers [L.]	22 10 0
5	Diamond Fuel Co. [L.]	5 0 0
32	Ebbw Vale Co. [L.]	29 0 0
100	Fox, Samuel, and Co. [L.]	80 0 0
10	General Mining Ass. [L.] (£1 returned)	9 0 0
20	Great Western Coal Co. [L.]	17 0 0
2	Gwyngwillim Colliery Co. [L.]	3 0 0
15	Hopkins, Gilkes, and Co. [L.]	11 0 0
50	Knowles, Andrew, and Sons [L.]	17 0 0
10	Llay Hall Coal, Iron, & Firebrick [L.]	10 0 0
5	Littledean Woodside Coll. Co. [L.]	5 0 0
50	Llynvi, Ogmore, & Tondu Co. [L.]	80 0 0
10	Lydney and Wigpool Iron Ore [L.]	8 5 0
10	Marbella Iron Ore Co. [L.]	10 0 0
6	Mersey Steel and Iron Co. [L.]	5 0 0
10	Midland Iron Co. [L.]	5 0 0
5	Mold Argoed Colliery Co. [L.]	5 0 0
10	Monkland Iron and Coal Co. [L.]	10 0 0
4	Mwyndy Iron Ore [L.]	3 10 0
100	Nant-y-Glo and Blaina (8 p.c. pref.)	100 0 0
3	Nerbudda Coal and Iron [L. & Red.]	2 0 0
20	New Sharlston Collieries [L.] Pref.	20 0 0
10	Newport Abercarn Coal Co. [L.]	10 0 0
10	Northmptn. Coal, Iron & Wagon [L.]	8 0 0
10	Northfield Iron Co. [L.]	8 0 0
1	Norton Green Coal Co. [L.]	1 0 0
35	Palmer's Shipbuilding and Iron [L.]	25 0 0
100	Parkgate Iron Co. [L.]	65 0 0
20	Patent Nut and Bolt Co. [L.]	14 0 0
20	Patent Shaft and Axletree [L.]	10 0 0
20	Pelsall Coal and Iron [L.]	15 0 0
50	Phœnix Bessemer Co. [L.]	40 0 0
50	Rhymney Iron Co. [L.]	50 0 0
10	Richards and Co. [L.]	10 0 0
100	Sandwell Park Colliery Co. [L.]	100 0 0
50	Ditto New	10 0 0
50	Shotts Iron Co. [L.]	50 0 0
100	Sheepbridge Iron and Coal [L.]	55 0 0
50	Silkstone & Dodworth Cl. & Iron [L.]	27 0 0
20	Skerne Ironworks [L.]	20 0 0
50	Somorrostro Iron Co. [L.]	50 0 0
25	South Wales Coal Co. [L.]	21 0 0
100	Staveley Iron and Coal Co. [L.]	60 0 0
100	Ditto ditto New	10 0 0
10	Swansea Valley Steam Coll. Co. [L.]	6 0 0
100	Thames Iron Company	100 0 0
50	Tredegar Iron and Coal Co. [L.]	20 0 0
25	Ditto B. shares	25 0 0
20	Ulverston Mining Co. [L.]	12 0 0
10	Vancouver Coal [L.]	6 0 0
100	Vickers, Sons, & Co. [L.]	100 0 0
50	Welsh Ironworks Co. [L.]	50 0 0
25	W. Cumberland I. and Steel [L.]	20 0 0
10	West Mostyn Coal [L.] (12 p.c.pref.)	5 0 0
5	West Swansea Colliery Co. [L.]	5 0 0
10	Whitehaven Iron Co. [L.]	10 0 0
100	Wigan and Whiston Coal Co. [L.]	70 0 0
100	Wigan Coal and Iron Co. [L.]	75 0 0

WAGON COMPANIES.

Shares.	Company.	Paid.
10	Birmingham Wagon Co. [L.]	10 0 0
10	Ditto, 2nd issue	4 0 0
10	Ditto, pref., 6 per cent.	10 0 0
20	British Wagon Co. [L.]	10 0 0
10	Gloucester [L.]	10 0 0
10	Ditto, 5th issue	5 0 0
10	Met. Rail. Car. and Wagon Co. [L.]	5 0 0
5	Ditto, pref., 6 per cent.	5 0 0
10	Midland	10 0 0
20	North Central Wagon Co.	20 0 0
5	Rail. Car. [L.] (Oldbury)	5 0 0
5	Ditto, pref., 6 per cent.	5 0 0
20	Sheffield Wagon Co. [L.]	15 0 0
10	Yorkshire Wagon Co. [L.]	10 0 0

TELEGRAPH COMPANIES.

Shares.	Company.	Paid.
"St."	Anglo-American	100 0 0
10	Brazilian Submarine	10 0 0
20	Direct United States Cable	20 0 0
10	Eastern	10 0 0
10	East. Exten., Australia and China	10 0 0
10	Great Northern	10 0 0
25	Indo-European	25 0 0
10	Mediterranean Extension	10 0 0
8	Reuters	8 0 0
Stk.	Submarine	100 0 0
10	West India and Panama	10 0 0
20	Western and Brazilian	20 0 0
$1000	Western Union, 7 per cent. Mort. Bonds	$1000

MISCELLANEOUS.

Shares.	Company.	Paid.
Stk.	Atlantic and Great Western Leased Lines, Rental Trust	100 0 0
25	Australian Agricultural	21 10 0
25	Austral. Mort. Land and Finance [L.]	5 0 0
10	Avonside Engine [L.]	7 0 0
Stk.	Baltimore and Ohio, 6 per cent.	100 0 0
10	Brighton Aquarium [L.]	10 0 0
Stk.	Cent. of New Jersey Con. Mort.	100 0 0
Stk.	Cent. Pacific of Calif., 1st Mort. 6 p.c.	100 0 0
25	City of London Real Property [L.]	12 0 0
25	Copper Miners of Eng. (7 p. c. pref.)	25 0 0
5	Diamond Rock Boring	4 10 0
15	English and Foreign Credit	3 0 0
16	Fore Street Warehouse [L.]	14 0 0
15	Foster, Porter, and Co. [L.]	10 10 0
5	Gen. Phos. & Chem. Works Co. [L.]	5 0 0
1	Greenhill [L.]	1 0 0
5	Kit Hill Tunnel [L.]	1 0 0
17	Hudson's Bay Company	17 0 0
10	Huntington Copper and Sul. Co.	9 0 0
Stk.	Illinois Central, $100 shares	100 0 0
Stk.	Illinois & St. Louis Bridge, 1st Mort.	100 0 0
Stk.	Ditto, 2nd Mort., 7 per cent.	100 0 0
Stk.	Illinois Cent. Sinking Fund, 5 p. cent.	100 0 0
Stk.	Ditto, 6 per cent.	100 0 0
7½	Imperial Credit [L.]	7 10 0
—	Ditto, Surplus Certificate	—
Stk.	Lehigh Val. Con. Mort., A, 6. p. cent.	100 0 0
10	Milner's Safe [L.]	10 0 0
25	National Discount [L.]	5 0 0
Stk.	N. Cent. Rail. Con. Mort., 6 per cent.	10 0 0
10	Pawson and Co. [L.]	6 0 0
50	Peninsular and Oriental Steam	50 0 0
Stk.	Pennsyl. Gen. Mort. 6 p. cent., 1910	100 0 0
Stk.	Ditto, Con. Sink. Fund, 6 p. ct., 1905	100 0 0
Stk.	Scottish Aust. Investment Company.	100 0 0
Stk.	Ditto, 6 per cent. Preference	100 0 0
10	Silber Light (ord. sh.)	10 0 0
20	Suez Canal shares	20 0 0
12	Telegraph Construc. & Mainte. [L.]	12 0 0
5	Ditto, Second Bonus Three per Cents	5 0 0
10	Tharsis Sulphur and Copper Co.	10 0 0
Stk.	Union Pacific Land Grant, 1st Mort.	100 0 0
Stk.	Union Pacific Railway, 1st Mort.	100 0 0

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